DOCUMENT RESUME

ED 195 738 CE 027 304

AUTHOR Winkler, Kathleen; And Others
TITLE Special Needs Learners in Vocational Education. An In-Service Training and Resource Manual for Teachers, Counselors, Administrators, and Other Support Staff.
INSTITUTION Massachusetts Univ., Amherst. Center for Occupational Education.
SPONS AGENCY Massachusetts State Dept. of Education, Boston. Div. of Occupational Education.
PUB DATE Apr 80
NOTE 183p.

EDRS PRICE MF01/PC08 Plus Postage.
DESCRIPTORS Accessibility (for Disabled); Classroom Techniques; Coping; *Disabilities; *Disadvantaged; Handicap Identification; *Inservice Teacher Education; Learning Activities; *Mainstreaming; Material Development; Physical Mobility; Postsecondary Education; Secondary Education; Self Concept; Student Characteristics; Teaching Methods; *Teaching Skills; *Vocational Education; Workshops

ABSTRACT

This handbook is both a resource for teachers, counselors, administrators, and other support staff and an inservice training manual for a teacher trainer in a workshop setting. Each of the first three (of four) sections contains two components. The first is a resource component with informative materials and various exercises to help the teacher understand and meet the needs of mainstreamed special needs learners. The second component is a set of instructions for activities for a trainer to use in inservice workshops. Section 1 presents information about the roots, needs, attitudes, and behaviors of the special needs learners. It includes suggestions for working with this group in both the academic and vocational shop/classroom. Section 2 deals with meeting the needs of the special needs learner in the classroom. Techniques for adapting instructional content, instructional materials, teaching strategies, and the physical environment are included. Section 3 addresses the coping skills associated with the ability to work with these learners with a sense of empathy and understanding and the self-concept development procedures to help learners develop self-concept and survival skills. Section 4 is a listing of resources, materials, and agencies and organizations grouped by type of disability: hearing impairments, visual impairments, speech impairments, physical handicaps, mental impairments, emotional problems, learning disabilities, and disadvantaged and/or culturally different. Mainstreaming is another heading. (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED195738

Special Needs Learners
in Vocational Education

An In-service Training and Resource Manual
for
Teachers, Counselors, Administrators,
and other Support Staff

April 1980

Developed by

Kathleen Winkler, Editor & Contributor

Dr. Kenneth Ertel, Principal Investigator

With the Assistance of

William Barnes
Nancy Gadzuk

Center for Occupational Education
University of Massachusetts
Amherst, MA 01003

Funded by the Massachusetts State Department of Education
Division of Occupational Education

CE 027 304

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

C. DiBella

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

The Commonwealth of Massachusetts
University of Massachusetts
Amherst 01002

SCHOOL OF EDUCATION

Dear Educator:

The Center for Occupational Education, University of Massachusetts, Amherst was awarded a research grant to perform a comprehensive analysis of the needs of occupational education personnel for professional development in special education competencies.

The initial phase of the project was research oriented. Vocational teachers, special educators, counselors, and other support personnel in the schools of the Commonwealth with state-funded vocational programs were asked to identify skill areas necessary to be able to enhance the educational services they provide for the special needs learner in vocational education. The skill areas identified by this research were used to generate the content areas for the second phase of the project which was defined as: developing a handbook which could be used as an inservice training and resource manual for teachers, counselors, administrators, and other support staff working with special needs learners in vocational education. This handbook represents the second phase of the project.

It is hoped that this publication promotes a better understanding of special needs learners and conveys ways of providing and enhancing services to these learners.

Sincerely,

Kathleen Winkler

Kathleen Winkler
Lecturer and Handbook Editor
Center for Occupational Education

Kenneth Ertel

Dr. Kenneth Ertel
Director
Center for Occupational Education

ACKNOWLEDGEMENTS

We would like to thank the members of our project advisory committee for their assistance in developing this handbook. They are:

Mr. Gregory Little, Director
Special Services Office
Granby School System
West St. School
Granby, MA 01033

Mr. Robert Sykes
Director, Special Educator
Taconic High School
Valentine Road
Pittsfield, MA 01201

Mr. Neil Elliot
Director of Curriculum Development
William McKinley Vocational School
50 St. Mary's St.
Boston, MA 02215

Dr. Katherine Best
Regional Center Director
Department of Education
219 North Street
North Reading, MA 01864

Mr. John Iacobucci
Chairman, Electronics Dept.
Greater Lawrence Regional Vocational
High School
57 River Road
Andover, MA 01810

Ms. Catherine Hopkins
Consultant,Educational Specialist
85 Ridgewood Avenue
Gardner, MA 01440

Mr. Clifton Reed
Acting Bureau Director
Bureau of Special Needs
Division of Occupational Education
Department of Education
The Commonwealth of Massachusetts

We appreciate the contributions of ideas and materials from Professor Allen Ivey, University of Massachusetts, Amherst and from the staff of the Adlerian Counseling Center in Amherst.

We would like to thank the staff at Franklin County Vocational School, especially James Conlon, for their cooperation and support in obtaining the pictures of learners in a vocational setting.

For their secretarial assistance, patience, and editing skills, we thank Ms. Linda Puchalski, Ms. Holly Crofton, and Ms. Lisa Lucas.

In addition, our thanks to those teachers, counselors, and administrators who responded to our research .

Kathleen Winkler

Kenneth Ertel

ABSTRACT OF THIS PROJECT

This handbook is the culmination of a research project in the area of special education/vocational education. The overall project was divided into three stages: (1) needs assessment, (2) curriculum handbook development, and (3) curriculum handbook dissemination. This document is the inservice teacher education training and resource manual or phase two of the project to be disseminated through a series of workshops in six educational regions of the Commonwealth.

Operational Components

This handbook contains two separate and yet interrelated operational components. The first component is represented by the off-white sheets and has been designed as a resource for the classroom teacher who would like to better understand and meet the diversified educational needs of all students within the mainstream of his/her shop or classroom. By reading the content of this curriculum and completing the various exercises, the educator should have the basic tools to begin effecting change within his or her classroom to meet the different educational needs of all learners.

The second operational component is represented by the gold colored sheets and contains sets of instructions for activities which a teacher trainer can utilize in an inservice workshop setting to convey the understanding and skills addressed within the handbook.

Content Components

SECTION ONE conveys information about the special needs learner. This section is a resource which will familiarize the user of this handbook with the roots, needs, attitudes, and behaviors of this group of learners. Suggestions for working with special needs learners within the mainstream are included. These suggestions are appropriate for both the academic and vocational shop/classroom although concrete suggestions specific to the shop area are included.

SECTION TWO deals with meeting the needs of the special needs learner within the classroom. Techniques for adapting instructional content, instructional materials, teaching strategies and the physical environment are included.

SECTION THREE addresses the coping skills associated with the ability to work with the special needs learner with a sense of empathy and understanding; with those self-concept development procedures which help a teacher gain professional strength and provide them with training in assisting learners to develop self-concept and survival skills.

SECTION FOUR is a listing of resources which can be utilized by the teacher working with special needs learners in vocational education and by individuals engaged in inservice training activities to aid all professionals servicing special needs learners in vocational education.

The Center for Occupational Education, University of Massachusetts, Amherst, was funded by the Massachusetts State Department of Education, Division of Occupational Education to perform a comprehensive analysis of the needs of occupational education personnel for professional development in special education competencies and to develop a handbook to teach those competencies through inservice teacher education activities. The project was funded in November 1978 with federal funds under the Vocational Education Act of 1976, P.L. 94-482. It represents an operational response to the joint responsibility of the Special Needs Division and Division of Occupational Education to encourage the improvement of special education for students in vocational environments.

To identify skill areas which needed to be addressed in the handbook a questionnaire was designed and mailed to staff members of 52 schools within the Commonwealth with state-funded vocational programs. Competencies which were categorized into three different types of skill areas and addressed in the research questionnaire are as follows:

1. technical competencies associated with the technical skills of teaching; such as curriculum development, management of learning environments, interacting with students, developing instructional resources, occupational teaching/learning strategies, and management of classroom

2. professional competencies associated with understanding the special education needs, types of handicaps, laws associated with special education, core evaluations, requirements for working with special education students in vocational environments

3. coping skills associated with working with special needs students with a sense of empathy and understanding; self-concept development procedures which help a teacher gain professional strength and provide them with training in assisting students in developing the self-concept and coping skills.

A total of 208 questionnaires were sent to vocational teachers, counselors, administrators, and special education coordinators within these schools. After a second mailing, a total of 138 respondents had completed the two-part questionnaire. Part I addressed demographic issues with regard to the respondents. Part II contained a list of competencies to be rated with regard to two dimensions: (1) "necessity" or how important the competency was to the overall effectiveness of the special education/vocational education program and (2) "proficiency" or how capable the respondent felt performing the particular competency. Two lists of competencies were generated for each group of respondents: (1) a list reflecting the ranking of competencies for the "necessary" dimension, (2) a list reflecting the ranking of competencies for the "proficiency" dimension.

As a result of the data gathered from the questionnaire, the research team (1) developed and disseminated a handbook to serve as a curriculum guide/teacher's and trainer's manual to meet the defined needs of vocational teachers in their effort to improve educational porgrams offered to special education students in vocational education, (2) developed and offered off-campus inservice courses for the vocational teacher in the area of special education/vocational education, and (3) made recommendations for professional development activities for individuals servicing special needs learners in vocational education.

TABLE OF CONTENTS

Page

LETTER TO EDUCATORS iii

ACKNOWLEDGEMENTS v

ABSTRACT OF THE PROJECT vii

SECTION

ONE - THE SPECIAL NEEDS LEARNER

- Introduction 1
  - The "Hard Hat" Shop Territory 1
  - The Special Needs Learner in Vocational Education 4
- Section One - The Special Needs Learner 6
  - Objective of This Section 6
  - Learners With Visual Impairments 6
  - Learners With Hearing Impairments 9
  - Learners With Speech Impairments 11
  - Learners Who Are Physically Handicapped and/or Chronically Ill 13
  - Learners With Mental Impairments 16
  - Learners With Emotional Problems 20
  - Learners With Learning Disabilities 22
  - Learners Who Are Disadvantaged and/or Culturally Different ... 28
  - References 37
- Trainer's Manual Section One - The Special Needs Learner 38
  - Objective of This Section 39
  - Introduction 39
  - Outline of Selected Activities For An Inservice Educational Component 39
  - Activities For Presentation of Specific Categories of Special Needs Learners 39

TWO - ADAPTING THE INSTRUCTIONAL ENVIRONMENT FOR SPECIAL NEEDS LEARNERS.

  - Objectives of This Section 45
  - Adapting Instructional Content 45
  - Adapting Instructional Materials 53
  - Adapting Teaching Strategies 65
  - Adapting the Physical Environment 76
- Trainer's Manual Section Two - Adapting the Instructional Environment For Special Needs Learners 82
  - Objectives of This Section 83
  - Introduction 83
  - Adapting Instructional Materials 83
  - Adapting Teaching Strategies 84
  - Adapting the Physical Environment 85

Page

SECTION

THREE - COPING SKILLS

Objectives of This Section 87
Introduction 87
Self-Awareness 87
Integrating the Special Needs Learner into the Vocational Education Environment 90
Sociometry in the Vocational School 92
Communication Skills 99
The Language of Encouragement 115
Trainer's Manual Section Three - Coping Skills 127
  Objectives of This Section 127
  Introduction 127
  Self-Awareness 129
  Communication Skills 130
  The Language of Encouragement 134

FOUR - RESOURCES

Learners with Hearing Impairments 139
Learners with Visual Impairments 142
Learners with Speech Impairments 146
Learners with Physical Handicaps 148
Learners with Mental Impairments 152
Learners with Emotional Problems 158
Learners with Learning Disabilities 161
Learners Who Are Disadvantaged and/or Culturally Different 165
Mainstreaming 169

INTRODUCTION

The most common learning generalization in Vocational Education is that students "learn by doing." In the shop environment, they learn the world of working by doing work under conditions as close to those in industrial environments as is possible. They learn complex skills using sophisticated, yet dangerous, equipment to perform tasks which would be expected in industry.

The "Hard Hat" Shop Territory

Vocational/technical shops use equipment, materials and processes that are hazardous and require control and safety processes like those used in the hard hat areas of a construction site. High speed band saws, radial arm saws, drills, planers, and electric hand tools in the carpentry shop are all dangerous to the person using them and to others nearby.

Learners at a table saw in the carpentry shop.

The agricultural farm shop has power equipment, torches, drill presses, motors, grinders, volatile fuels, poisonous materials, and fast moving equipment that require close attention to detail, disciplined action, and keen awareness of other actions around you, and all are being used at once.

The machine shops with powerful milling machines, grinders, lathes, and acids are dangerous even under closely supervised instruction. The welding shop with its controlled but explosive gases, powerful flames melting metals, grinders throwing metal shards, and heavy cumbersome materials create danger in a complex noisy environment. All of these require alertness, caution, strength, and concern for safety as well as process.

In home economics or food services, the power sewing machines, ranges, deep fat fryers, and microwave ovens all used under intense high speed job situations can in a flash become extremely dangerous.

photo
1-2
3 x 4½
A

Preparing a luncheon salad in the culinary arts program near dangerous equipment and materials.

In office education, graphic arts, and printing, power staplers, punching machines, cutting bars, collators, and presses can without proper control be dangerous instruments.

The automotive, auto-body, heating, air-conditioning, electricity, electronics setting...yes, every shop has its hazardous areas that require alertness, attention to detail, awareness of surrounding, and control under complex noisy active conditions. Vocational shops are "hard hat" territory.

In that hard hat territory, most learning activities are individualized. Students are on different jobs, different stages of a common job, at diverse stations, working intensely with hazardous and complex materials and processes. Each shop is seen as a beehive of diverse complex activities. Each student must be given some individual support, while at the same time general supervision of the total shop is in force. The vocational instructor must be very alert with a keen eye for safe/unsafe conditions.

Vocational teachers have often resisted taking special needs students into their shop environments. They argue that special needs students require so much extra supervision, special help, and time that it creates an unsafe condition in the shops. Clearly there is cause for anxiety. Yet vocational teachers have many times proven success in working with special needs students.

With the onslaught of legislation which mandates educational services be provided to all special needs learners, the vocational teacher found himself/herself servicing a group of learners with a wide range of capabilities, behavioral needs, and skills within the mainstream of that regular vocational setting. Special skills, knowledge and support are needed to design, implement, and deliver effective vocational educational programming of these learners.

The typical vocational teacher has as his educational and experiential background a number of years of work in industry. He has typically gone through an apprenticeship program pattern of journeyman's experiences on the job. The vocational teacher does not have the years of academic preparation, psychological background, educational methods and theories one might find in a general education classroom. He has a great deal of depth in subject matter content that is associated with the trade he has learned and is teaching. Many vocational teachers express a level of anxiety about their experience and background for working with students with learning difficulties and also the handicapped students in the classroom environment.

In many ways their extreme depth in the skills associated with the trade has not given them the type of learning that makes it comfortable for them to work with special needs students in the classroom. There is a sense that this type of learning requires a special understanding of the students, a special understanding of learning styles, a comprehension of differences of learning rates and a comprehension of the variations of potential for even simple physical activities. For these reasons, many vocational teachers have been reluctant to service special needs students in their classrooms. That reluctance comes from a high sense of anxiety. At the same time that they are responsibly carrying through their teaching of the students who are not experiencing difficulties with learning in their class. For these reasons, the State Department of Education has asked the Center for Occupational Education at the University of Massachusetts to develop an inservice teacher training handbook which will help the vocational teacher, particularly the shop teacher to enhance his/her ability to work with the special needs student who is mainstreamed within shop programs. To accomplish this objective, this project staff did a statewide needs analysis which asked the practicing vocational teachers what they needed to learn most to help them better meet the needs of special needs learners. We also asked experts in the area of special education/vocational education for their inputs. We have consolidated that information and developed for the vocational teacher a series of inservice teacher training experiences which we believe will help him/her work with all learners with the classroom or shop area.

The Special Needs Learner in Vocational Education

A new approach to viewing specific segments of the learner population has been initiated. Chapter 766 introduced a term of reference for the group of learners within the curriculum who had previously been classified as retarded, deaf, emotionally disturbed, or in some way learning disabled. The term "special needs learner" was introduced and the emphasis was shifted to the services which these learners require to enhance their ability to function within the mainstream of the regular educational setting, rather than the focus being placed upon the handicapping condition itself. Thus, with this new concept, a learner might in fact possess a physical or sensory impairment but be fully capable of functioning successfully within a regular educational setting without additional or special services and would not be identified as a special needs learner.

photo
1-3
3 4/10 x 4 1/10
n

Within this educational setting a learner with a physical handicap may not need additional or special services.

Previously, learners were assigned to special educational settings based upon medical diagnosis, IQ scores, and other specific tests and measures without giving full consideration to their ability to function successfully within a regular educational setting. This new law has been designed to eliminate the possibility of an individual's potential being stereotyped and cricumscribed based upon assignment to a group such as mentally retarded, emtionally disturbed, or some other category.

The authors of this handbook are in full agreement with this approach to providing services and perceiving special needs learners. However, for the purposes of achieving the goals of the first section of the handbook, we will need to classify and categorize learners in some manner so that we can better identify, understand, and service special needs learners.

In this first section, we will examine the unique characteristics of the different types of special needs learners and share background information about these learners which is pertinent to the delivery of effective educational services to them in a vocational education setting. All three sections of the handbook convey skills and understandings so that the vocational teacher can provide better input as a team member into the individualized educational plan of the special needs learner enrolled in vocational education.

The different categories of special needs learners reflected in this section have been taken from the local planning booklet for programs funded under P.L. 94-482 which reflects Massachusetts annual and five-year plan for vocational education to fulfill requirements as defined in P.L. 94-482, Title II.

It should be stressed that in identifying, defining, and describing special needs learners, we are not always talking about homogeneous populations. There will always exist differences among individuals and certainly not all of the identifying characteristics which will be outlined will apply to all learners within each category. This consideration is important to all categories of special needs learners.

Special needs learners as a group can be divided into two basic subgroups of individuals: those who are handicapped and those who are disadvantaged and/or culturally different. Each sub-group can be further broken down into a number of different types of learners according to the following outline:

Handicapped Learner
- Visually impaired
- Hearing impaired
- Speech impaired
- Orthopedically handicapped and/or chronically ill
- Mentally retarded
- Emotionally disturbed
- Learning disabled

Disadvantaged and/or Culturally Different
- Academic
- Socio-economic
- Economic

This first section of the handbook as it addresses the issue of identifying the special needs learner will adhere to the above outline.

Section One — The Special Needs Learner

by Kathleen Winkler

OBJECTIVE OF THIS SECTION

> The vocational educator will gain a knowledge of the needs, attitudes, behaviors, underlying causes, and teaching techniques regarding special needs learners.

LEARNERS WITH VISUAL IMPAIRMENTS

Definition

Learners within this category are severely limited in their ability to see. They possess an impairment which even when corrected, adversely affects their educational performance. Dealing with learners affected by this impairment is of special concern to the shop teacher where safety is always a major issue. Modifications to equipment and changes in teaching techniques within the shop area can be made to reduce hazards for the visually impaired. Suggestions for dealing with these issues are addressed within this handbook. (For learners who do not possess a visual impairment but experience difficulty processing visual information, refer to the section about learning disabilities--visual domain).

Classification

Federal legislation breaks impairments in vision into two types of impairments--partially sighted and blind.

Partially sighted. Even though this learner has corrected vision, he/she still needs program, equipment, and facility modifications to function within the educational environment to his/her potential.

Blind. With this learner, the visual disability is so severe that he/she must depend, to a large extent, upon his/her sense of touch and hearing to be able to function.

Causes

With blindness, several factors may be identified as causes. A large percentage is due to prenatal factors, a vast majority of which are undetermined as to cause. Poisonings also lead the causal list. For example, during the period 1942 to 1955 an increased concentration of oxygen was given to premature infants placed in incubators, this often resulted in total blindness. It was finally determined that oxygen therapy in such high concentrations could lead to diastrous results and this disease virtually disappeared after 1955. However, thousands of individuals were blinded during this period and increased services must be provided. Other causes are infectious diseases and injuries.

With partially-sighted individuals, refractive errors (light rays not focusing on retina), structural defects (cataracts), defects in muscle functioning, infection, and injury, account for these impairments.

Observable Characteristics

Learners with visual impairments may display one or more of the following behaviors:

- shuts or covers one eye, tilts head or thrusts it forward when looking at objects
- appears clumsy, careless, awkward
- rubs eyes excessively, frowning
- displays sensitivity to bright lights
- blinks more than usual, crying often
- holds books or small objects close to eyes
- stumbles or trips over small objects
- has red-rimmed or swollen eyelids, inflamed or watery eyes

Suggestions for Working within the Mainstream

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas although in some instances certain suggestions are given pertaining to specific vocational settings:

- make sure that the learner is seated where he/she can hear you clearly and is provided with good lighting; seat the learner with his/her back toward the window to eliminate glare
- provide an opportunity for the learner to explore the classroom or shop area to become familiar with the positioning of furniture and equipment; be sure to inform this learner if any changes in the physical environment occur
- provide additional materials of larger than ordinary size and auditory modes of instruction whenever possible (e.g. records, tapes, talking books); an overhead projector is quite useful in this instance because the image projected is often larger than is presented on the blackboard
- avoid raising your voice, a commonly occurring error; learners with visual impairments may not possess hearing impairments

- use braille material whenever possible (refer to resources section for agencies/organizations that distribute vocational braille materials)
- when discussing anything, be sure to describe completely and in detail
- encourage peers to help this particular learner; you might want to pair this learner with another learner to record textbook information and other relevant notes
- if equipment is involved, use auditory instead of visual warning signals and install guard plates in power equipment; use braille controls, raised markings (e.g. dots of glue)
- whenever necessary, order specially designed tools (e.g. braille ruler, audible electronic level)
- when using the board to present information, read aloud what appears on the board
- when giving a written test, make sure learner receives the darkest ditto, black is best instead of purple
- try to use modes of presentation other than the visual domain
- allow the learner to be tested and to respond to a tape recorder
- avoid using highly polished surfaces on desks and other working areas to reduce glare
- select illustrations that are clear and colorful without too much detail
- use adjustable moveable dulled surface desks and/or reading rack to bring reading material up to eye level
- if necessary, allow for rest periods or a change in activity to reduce fatigue; allow learner to rest eyes by looking away from work to some distant object or scene
- allow learner to write in larger than ordinary print using preferably felt tip or heavy ball point pens
- describe what you are doing when demonstrating; be sure to avoid vague terms (e.g. open this here)
- show how physical objects can be distinguished from each other through tactile examinations.

LEARNERS WITH HEARING IMPAIRMENTS

Definition

These learners possess a sense of hearing that is inadequate for success in an educational setting. In a vocational setting, this impairment can become an area of concern if hearing is necessary to distinguish operating machinery, safety devices, and/or the existence of hazardous learning conditions. Modifications to equipment and changes in teaching techniques within the shop area can be made to reduce hazards for the hearing impaired. Suggestions for dealing with these issues are addressed within this handbook. (For learners who do not possess a hearing impairment but experience difficulty processing auditory information refer to the section about learning disabilities--auditory domain).

Classification

Federal guidelines define and classify hearing impairments in the following manner:

Deaf. A hearing impairment so severe that it adversely affects a learner's performance so that with or without a hearing aid, the learner is unable to hear and recognize all speech sounds.

Hard of hearing. A permanent or fluctuating impairment where the learner can hear and understand speech only with difficulty. The speech must be loud and the learner must use a hearing aid, lip read, or use sign language, as a back-up system.

Causes

Causes of this impairment can be organized under two general impairments, endogenous (inherited defect) and exogenous (disease or injury). Many cases of this impairment are listed as undetermined. Examples of exogenous causes range from German measles in early pregnancy of the mother as well as influenza and mumps. Childhood diseases such as scarlet fever, mumps, measles, whooping cough, typhoid fever and pneumonia may injure the ear. Also, misuse of antibiotics may cause hearing loss.

In addition, hearing loss may be caused by continued exposure to high-intensity noise in the work and other environments and certain toys such as cap guns and toy rockets may produce noise levels sufficient to damage hearing. Rock and roll music has also been shown to be played at intensity levels above the damage risk level.

Observable Characteristics

Learners who possess a hearing impairment may display one or more of the following behaviors

- uses "what?" often
- shows difficulty hearing in a group
- holds head in a strange position when spoken to or may turn one ear to the speaker
- displays inattentiveness especially when auditory activities are occurring
- omits certain sounds from words, substitutes others, or mispronounces simple words
- often has earaches or colds, has swelling in or around the ears
- is unable to discern which direction sound comes from, and may be unable to tell who is speaking in a group
- asks frequently to have things repeated
- frequently does not respond to questions.

Suggestions for Working Within the Mainstream

- make sure that the learner is positioned advantageously both in the classroom/shop/lab setting and when participating in a group. It is essential that this learner be able to see the lips of everyone involved in the particular activity
- make sure the learner is paying attention to you when assignments are given or other important activities are being addressed
- when presenting a lecture, always face the learner, articulate clearly at normal speed and in a natural tone. Be careful not to stand with a light source or window to your back. Use your expression and motions to show emphasis and feelings. A speaker with a lisp or moustache would present grave problems for a learner relying on lip reading to process information.
- when writing on the board, write without speaking, then turn around to speak to the class
- try to cut down on extraneous external noise as much as possible, this can adversely affect the learning situation for the learner with a hearing impairment

- make use of as many visual aids and written materials as possible; if the lesson at hand is complex, provide additional outlines, vocabulary lists, etc. to supplement in-class presentations
- pair the learner with a hearing impairment with other learners and encourage a sharing of notes and learning experiences
- if equipment is involved in the shop/lab/vocational classroom, install light next to switch which indicates that machine is in use; also, connect light signals to typewriter bells, class bells, fire alarms and other emergency indicators
- if an interpreter is providing services to a learner with a hearing impairment provide an outline/notes before the class begins on what is to be discussed during class
- remember that is is difficult for a learner to lip read and take notes at the same time.

LEARNERS WITH SPEECH IMPAIRMENTS

Definition

Within this group we find learners whose speech is so defective that it calls attention to itself, interferes with communication or causes the learner to be maladjusted. These learners understand the English language but possess defects such as stuttering which prevent them from easily conveying their knowledge.

Classification

Speech defects may be grouped into the following categories:

Disorders of articulation. Involves substitution, omission, distortion, and/or addition of sounds. For example, substituting "w" for "r" "th" for "s" Consonants are often dropped from the beginning, middle, or endings of words, making speech almost unintelligible. Distortions occur when an attempt is made to approximate a specific sound.

Disorders of the voice. Includes problems with vocal quality, pitch and intensity. For example: a hoarseness, breathiness, huskiness, or nasal twang are associated with defects in vocal quality. Pitch is often related to problems of the development of the larynx. Intensity of the voice may reflect lack of control of vocal power, attention seeking, immaturity, or insecurity.

Stuttering. Considered a disorder of rhythm or fluency where the disfluencies occur as involuntary and abnormal repetitions.

Delayed speech--occurs when learner does not develop speech appropriate to his/her age level or develops only partial understanding of vocal expression/language. This can happen when there is some form of central nervous system damage after language has begun or prior to the development of language (called aphasia)

Cleft lip and palate--a condition which results when during the second or third months of pregnancy, bone and tissue of palates fail to fuse; it is possible that this condition includes nasal emission, hypernasality, and misarticulation

Disorders associated with impaired hearing--depends upon the severity and kind of hearing loss. There may occur omissions, disruptions of sound in high frequency range, poor discrimination between sounds, and omissions and indistinctiveness of word endings.

Causes

Disorders of articulation may be caused by the malfunctioning of any part of the vocal system including breathing, vocal cord vibration in the larynx, auditory discrimination, sound perception and perception in the central nervous system, tongue, pharynx, lips, teeth, palate, and jaws. It is possible for a learner to have impaired functioning of the vocal system and no speech problems while other learners might have speech problems but no structural defect. Speech problems may be experienced-based as is true of some learners from an impoverished environment, those who are immature, and those with emotional problems. So, as is often true with other categories of special needs learners, the causes of the disorder can be capacity or experienced based.

Observable Characteristics

Learners within this group are identified either by the screening process which now occurs, or through teacher referral. Characteristically, their verbal behaviors reflect their specific disorder. One might find a learner of this group:

- stuttering
- speaking with a nasal twang quality which might produce something like "spring has cob," instead of the "spring has come"
- substituting "w" for "r" such as "wide" for "ride"
- adding letters within words such as a learner who might say "sumber" instead of "summer"

- adding vowels between other syllables such as "on-a-the-chair
- displaying a huskiness, hoarseness or breathiness in the production of sound
- speaking in a high pitch, or excessively loudly or softly
- speaking in patterns which indicate mismatched speech patterns and chronological age, and only a partial understanding of language or vocal expression
- speaking unusually slowly or very quickly.

Suggestions for Working within the Mainstream

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- if the learner is not already receiving speech therapy, refer him/her to a speech therapist
- be careful with your language style and ennunciation; provide a good example within the instructional setting; this establishes a model for the learner to listen to and imitate
- deal with this learner with patience and acceptance; gently correct the mispronounciations
- do not ridicule or call attention to any speech problems the learner may display and actively discourage other students from doing so
- create a learning atmosphere in which the learner may feel comfortable; initially, ask questions which elicit one word answers
- create opportunities for the learner to experience success in non-speech related activities
- encourage small group discussions
- be sure to pay careful attention when this learner is speaking.

LEARNERS WHO ARE ORTHOPEDICALLY HANDICAPPED AND/OR CHRONICALLY ILL

Definition

Learners within these categories possess health conditions which inhibit their mobility, vitality and alertness. Their health conditions interfere with their ability to function within a regular school program and a vocational setting as well. Because it is not unlikely to find heavy, powerful equipment and sharp tools within a vocational setting, it is understandable that shop teachers have some anxiety about instructing learners within this environment where the learner's alertness, mobility and vitality may fall well below the levels necessary to safely function and learn. There are, however, measures, techniques, and tools which can be employed to allow these learners with physical handicaps to operate more successfully and in a safe manner within this environment.

Classification

Included within this category are neurological disorders, malformations of the spine, loss of limbs, muscular diseases, epilepsy, tuberculosis, blood diseases such as hemophilia and leukemia, allergic conditions such as asthma, and chronic diseases such as diabetes.

Causes

Crippling conditions and chronic illnesses result from congenital or inherited abnormalities, infections, metabolic disturbances, traumatic conditions, accidents, progressive diseases, or from unknown or miscellaneous causes.

Observable Characteristics

For learners with orthopedic handicaps:

- lack of motor control
- absence of a limb
- slow movement because of pain within muscles, joints, limbs.

For learners who are chronically ill:

- absence from school frequently
- tired, thin, sickly appearance.

Suggestions for Working within the Mainstream

Usually only some modifications of instructional techniques are necessary for this group of learners. As a group, these individuals have probably experienced limited mobility within their community and have difficulty perceiving themselves as part of the community. They may also have been rejected by family, peers, teachers, and other individuals because of the physical presence of their disability.

It is important to build positive self-concept and survival skills within these learners. The following are suggestions for working with these learners:

- work to develop a positive attitude toward this learner yourself and spread this feeling throughout the school setting especially within the classroom

- familiarize the learner with the community and its business/industry (e.g. field trips, guest speakers, simulation games)

- establish a system whereby this learner receives personal assistance from friends or class members when specific tasks are difficult to accomplish alone (e.g. if a learner has limited mobility above the waist, pair with other learner who can copy lecture notes

- when sharing instructional material, making presentations, or conducting demonstrations, be sure that this learner is able to see and hear what is occurring

- work with the learner to set realistic goals, review the goals on a short-term basis, periodically

- design tasks that will produce positive reinforcement and the development of self-worth

- acknowledge that the learner is an individual in his/her own right

- display an extra amount of caring supportive behaviors

- work with others within the educational setting to familiarize everyone with the problems an orthopedically impaired learner might experience

- develop and maintain community contacts so that job vacancies may be identified

- identify, utilize, and foster role models of orthopedic individuals who are successful in the world of work

- use adaptive hardware to meet the very special needs of this group (e.g. for a poorly coordinated learner, an arm rest for the typist's hands might be used to prevent the learner from inadvertantly striking keys or if the work station puts tools or supplies out of reach, either provide a tool so that the learner can gather in items or reorganize the tool and supply areas so that other physical accommodations will not be necessary).

LEARNERS WITH MENTAL IMPAIRMENTS

Definition

The definition accepted by the American Association of Mental Retardation is that mental retardation:

> refers to significantly subaverage intellectural functioning existing concurrently with deficits in adaptive behavior, and manifested during the developmental period.

Thus, according to this definition, three criteria must be met. Subaverage intellectual functioning is usually determined by an intelligence test and defined as a score which falls more than two standard deviations below the mean. This index must be coupled with deficits in the rate of development of sensory-motor, self-help and communication skills, academic achievement, socialization, and economic adjustment. The index and deficits must also manifest themselves during the first 18 years of life. This is the period during which potential is assessed and if these indices occur at this time, they serve to distinguish mental retardation from other disorders.

These learners with a very different learning potential with respect to patterns of skills, behaviors and comprehension of safety techniques, can, without proper supervison and instruction, increase the hazard potential for themselves and others within the shop environment. The vocational teacher has a number of options which he/she may employ to best serve these students while at the same time serving others within the same environment. Suggestions are incorporated at the conclusion of this section.

Classification

Educable mentally retarded. Learners within this category usually test out at an IQ of 50-70. Physically, they appear normal for the most part and function intellectually at approximately one-half to three-fourths the normal functioning levels of other learners. They can be expected to attain somewhere from a second to seventh grade level in academics and can be trained to work at unskilled or semiskilled jobs. The learners within this category at the lower range of IQ may need special assistance to effectively adjust socially and economically.

Trainable mentally retarded. Within this category are learners who have been tested with an IQ of 30-50 and function at an intellectual level of one-third to one-half the functioning level of other learners. Many of these individuals will look physically different with respect to facial and/or physical characteristics. Many will have physical and/or sensory impairments. Most of these individuals can be trained for employment which requires single skills and where adequate supervision is provided. Most are capable of economic sufficiency especially in a sheltered workshop setting.

Profoundly mentally retarded. These individuals are not traditionally considered within the range of special education because they would not be found within the confines of public educational facilities. Functioning at IQ levels of below 30, these learners are most often completely dependent upon others for their existence and are often placed in institutions very early in life.

Most recently, the care and treatment of these individuals has assumed a different thrust. Behavior modification and environmental stimulation techniques are being used to help these individuals develop a moderate amount of independence within highly supervised environments.

Causes

Mental retardation is a symptom, a symptom which can be a result of quite an array of conditions, diseases, and medical pathologies. Many times, mild mental retardation is a result of an interplay of familial and social factors when heredity may set limits on mental capacity and potential while the environment determines to what extent this potential will be attained. Severe mental retardation can be traced to over 200 known causes. In any case, it is almost impossible to determine the exact cause of a given case of retardation.

Causes of mild mental retardation:

Familial. A small percentage of each ethnic group falls at the lower end of the scale when considering distribution of intelligence quotients. Every ethnic group is represented.

Neurological. In some cases, specific pathologic disease conditions may have caused damage to an individual's central nervous system thus resulting in mild levels of retardation.

Nutritional. Evidence exists that chronic malnutrition, whether in the mother or in the developing child, adversely affects mental performance. The lack of proper nutrients during critical times of brain growth and development often results in retardation.

Environmental. In this case, the lack of sufficient environmental stimulation during infancy and early childhood prevents the child from progressing at a normal rate of intellectual development. Learners need sensory stimulation, perceptual experiences, adult language models, and many other experiences for cognitive growth and development. It has been established that the lack of those factors eventually leads to mild mental retardation.

Causes of severe mental retardation:

Prenatal. These causes can be genetic or environmental in nature. Genetically, the most common example is Down's Syndrome, a chromosomal disorder where incidence increases with increasing age of the mother. Other genetic conditions may result in inborn errors of metabolism where the infant's system is unable to metabolize certain chemicals thus causing the release of harmful chemicals and causing brain damage. This type of condition is also genetic--it is based on recessive genes. Environmentally there are hazards that can alter the intra-uterine environment of the fetus and cause fetal malformation -- German measles, Asian influenza, blood group incompatability, alcohol, and ingested agents.

Perinatal factors. These factors occur at delivery of the child. Prematurity, anoxia, lack of oxygen at birth, difficult labor and forceps delivery may leave the infant biologically vulnerable to postnatal hazards or result in brain damage for the infant.

Post-natal causes. These causes occur after birth and can be linked to childhood diseases such as encephalitis or meningitis, where prolonged high fevers during the first 24 months of life may cause brain damage. Other examples are a blow on the head, lead poisoning, asphyxia, or tumors. These can change mental development and result in severe mental retardation for a child.

Observable Characteristics

Because the profoundly mentally retarded learner will not be found within the public school system, an examination of the common characteristics of only the educable and trainable retarded learner will be addressed. One might find a learner within these groups:

- becoming easily distracted--constantly looking around the room
- easily forgetting things previously learned
- tripping over things, walking awkwardly
- not completing assignments
- displaying behaviors atypical of his/her chronological age
- acting impulsively or immaturely
- using short, incomplete sentences.

Suggestions for Working within the Mainstream

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- make use of instructional materials designed for the slow learner
- modify your curriculum to meet the needs of the slow learner; make sure your goals and expectations are reasonable (refer to section on adapting the instructional environment for examples)
- remember that interest and motivation are critical issues in the learning process for this learner--try to involve him/her in the learning process from day one
- initially design tasks that are simple, fail-proof and safe
- perform a task analysis which breaks each skill into its component parts; be sure that the learner masters each subtask before proceeding onto the next subtask--thus eliminating the possibility of the learner feeling overwhelmed
- take time to instruct the learner--do not rush--ensure that this learner understands you; try to be more specific, more clear, more precise with your instructions; repeat instructions on a regular basis
- allow extra time to complete assigned work or specific tasks; if the task is taking too long to complete, then you may have to break it down into smaller components; reinforce learner often
- overteach; even if the learner seems to have mastered a skill/specific task, require the learner to practice what was learned; supervise often
- repeat instructions often; do not assume that the learner has mastered a task
- deal in concrete terms--try to eliminate abstractions from instruction
- present material in a well-organized manner
- whenever possible, employ visual modes of presentation--use films, drawings, slides, charts, etc.
- repeatedly ask questions during the learning process to ensure the learner is keeping pace with you and others
- capitalize on interest area of this learner to develop learning

- speak to this learner as you would speak to anyone else; be careful not to "talk down" or treat this learner as a small child
- allow extra time to supervise this learner to be sure the task is being completed in a safe correct manner.

Learners with emotional problems display a wide variety of behaviors. The learners with behavioral disturbance patterns which are less severe in nature, can be likened to the socially maladjusted learner who might either withdraw or display overtly aggressive behaviors (refer to the culturally different section for causes, behaviors, and ways to respond to these learners).

The remainder of the learners within this category are severely disturbed and display behaviors much more severe and extended in duration.

LEARNERS WITH EMOTIONAL PROBLEMS

Definition

Severely emotionally disturbed learners display uncontrollable psychotic-like behavior that is out of touch with reality, often bizarre. Their behaviors are a way of life for them and reflect the way they see the world.

Classification

Psychosis refers to a severe emotional disturbance and has been divided into the following three types by the practitioners:

Childhood schizophrenia. A condition in which the child displays a high degree of isolation and an inability to relate to others very early in life (age one or two).

Infantile autism. A condition very similar to childhood schizophrenia but one that is more severe in nature and is manifested by the child at birth.

Childhood symbiotic psychosis. A condition which typically occurs in the two-to-five year age group where such children are unable to detach themselves from their mothers and achieve independence.

Causes

As with other diagnostic categories of special needs learners, the causes of severe emotional disturbance can be derived as capacity and/or experience based.

The general consensus regarding schizophrenia is that a definite inherited component is involved although heredity alone is not the cause; there is also an environmental component. These children are predisposed to this condition but some environmental condition is required to activate it. Schizophrenia may also have a biological cause stemming from a lag in such things as pulse, sleeping patterns, and/or respiration. There exists a tendency toward the disorder which is activated by some psychological crisis. In the case of autism, there is no general consensus as to its cause. Neurological impairment, not experience, has been defined by some practitioners while others see these neurological factors as the primary cause with environmental factors as the critical determiner of behavior.

Observable Characteristics

- imposes self-isolation
- insists obsessively on preserving sameness (repetition of pattern/behavior/environment)
- unable to relate to others
- communicates poorly
- demonstrates narrow interests
- is easily frustrated
- displays bizarre behavior
- frequently appears unhappy and depressed
- is prone to angry outbursts
- is overly self-critical
- repeats what is said by others verbatim
- is awkward - displays disorders of mobility
- repeatedly disrupts classroom

Suggestions for Working within the Mainstream

- provide a socially supportive climate within the classroom (try not to criticize the learner when in the presence of peers)
- clearly define specific behaviors and their consequences; be consistent with your limits and responses
- minimize failure, maximize potential for successful experiences
- eliminate distracting stimuli, internal and external

- if possible, use modes of instruction/evaluation other than paper and pencil activities
- give feedback regularly concerning the learner's progress; be especially alert for opportunities to praise this learner.

LEARNERS WITH LEARNING DISABILITIES

Definition

Learners found within this category have difficulty processing information in the visual, auditory, motor, attending, and conceptual domains. They are not mentally retarded and usually do not possess other major handicapping conditions, nor do they have an impairment of the basic sensory organs. These are learners who perceive letters, numbers, or symbols in a disturbed fashion but have normal vision. If asked to copy the word "black" they might write "balck" without being able to tell the difference between the two words. They might distort what they hear. For example, if asked whether "note" and "nope" are the same or different words, they may say they are the same.

Basically, these are the learners who manifest the disorder in one or more of the basic psychological processess of understanding or in using spoken or written language.

Classification

One of the ways of grouping these learners is according to the area of learning or the behaviors where the learning disability occurs. One such system which involves general groups of learning disorders is as follows:

Visual Domain

Auditory Domain

Motor Domain

Attending Domain

Conceptual Domain

When examining language and motor problems, one has to ascertain if the problem occurs when the learner is processing input, output, or both. With learning problems, one has to identify the problem as receptive (reading and comprehension or spoken and written and quantitative concepts) or expressive (writing, talking, and calculating), or mixed (reading, writing, understanding, and talking). Further, one can break the problems down into the auditory or visual mode of communication. Nonverbally, problems can occur in understanding (receptive) and using gestures (expressive).

Causes

A learner who possesses a learning disability may have these difficulties as a result of many different circumstances. Neurological impairment, which may involve head injuries, diseases after birth, and even unfavorable conditions related to the birth process, can account for a great number of learning disabled learners. Maturational lag, a condition during which parts of the brain mature at different rates, can result in a learner with an irregular pattern of skills and deficits.

Deprivation and inadequate instruction or environmental/experience-based factors can also lead to a learning disability. A limited range of early experiences may have a serious detrimental effect on a learner's later functioning level. (Learners who have not had adequate perceptual-motor experiences often encounter difficulties in learning.)

Finally, it has been suggested that emotional factors and limitations in the range and nature of experiences of classroom instruction may play a significant role in learning disabilities.

But, whatever the cause, the educator is mainly concerned with remedying the problem as quickly and effectively as possible.

Observable Characteristics

The following are the most cited characteristics of learners with learning disabilities. Within the visual domain, the learner:

- has difficulty discriminating between objects of different size, position in space, color, texture, and number of items
- is clumsy, has coordination problems, often bangs into things
- has limited attention span for visual tasks, seems easily distracted
- when reading, tends to skip words and even lines, chops off endings of words
- cannot evaluate visual input
- has difficulty with written instruction but can follow verbal instructions

- holds head very close to what is being read
- cannot distinguish between words that look alike, might repeat or omit words when reading, forgets things he/she has seen
- reads in a word-by-word fashion
- is unable to follow moving object smoothly with eyes
- rubs eyes often
- has difficulty gauging spatial relationships, written work is often messy

For this learner, a loss of interest and motivation can occur. The learner works hard, often trying not to let the teacher know about his/her problem, has difficulty succeeding on tests, receives a minimal amount of rewards for what is often maximum effort and consequently becomes discouraged and loses interest and motivation.

Within the auditory domain, the learner:

- speaks too loudly or too softly
- cannot distinguish between background noise and instructional sounds, is easily distracted by noise
- is unable to remember what is discussed in class
- has difficulty following simple oral instructions, misperceives what is being said (e.g. when the instructor says "take the map out of the desk", the learner might hear "take the a nap on the desk"
- appears to be straining to see what is being said
- is hyperactive and displays motor behavior which is not appropriate to the situation or task involved and is disruptive to the rest of the learners
- often cannot locate source of sound
- displays difficulty in maintaining interest and attention during lectures and discussions (although during subjects such as physical education and art, he/she is very attentive)

Within the motor domain, the learner:

- is clumsy, trips, and bangs into things
- often needs support when standing
- has difficulties when drawing, writing, printing, copying, and often finishes work last or late

- is unable to plan organization of work on paper (e.g. may cramp writing into one corner of sheet)

- displays writing which is uneven, cramped, very large, very small

- has difficulty using large and small muscles in a coordinated smoothly conditioned fashion

- must work harder to accomplish the same amount of work as other learners (fatigue may set in after completing a task and the learner may appear lazy when asked to complete subsequent tasks)

Timed assignments are difficult for this learner. Two dimensions are found operating: neatness and promptness. Many times the learner must sacrifice one dimension for the other and he/she either submits a sloppy completed assignment on time or a neat assignment which is not complete.

Within the attending domain, the learner:

- has a great deal of difficulty focusing on a task and inhibiting inappropriate responses to internal (hunger, pain, etc.) and external (noise, light, etc.) stimuli

- appears to be more interested in what is occurred around him/her than in getting work done

- tends to respond to every noise (e.g. if a car door is closed outside, the learner might quickly look at the window)

- displays hyperactivity, moves around a great deal

A distinction must be made here between interest distractability and auditory, visual, etc. distractability. A learner who is just not interested in the subject at hand and displays some of the above behaviors is quite different from the learner who might be interested in the subject at hand and is unable to pay attention. The learning disabled learner with attending problems would be able to learn if he/she could attend long enough.

Within the conceptual domain, the learner:

- has difficulty putting thoughts and feelings into words

- when speaking, will often beat around the bush because is unable to think of words to describe things

- can deal with concrete terms, is unable to deal with abstractions (cannot use concepts relating to feelings and emotions)

- prefers working on non-verbal activities
- is unable to classify things verbally (e.g. if asked to name the pieces of furniture you might find in a living room, this learner would experience varying degrees of difficulty)

Suggestions for Working within the Mainstream--Visual Domain

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- when making presentations, accentuate auditory modes of presentation versus visual modes
- shorten assignments before given out to learners, also give extra time for learner to finish assignment when necessary
- base evaluation on material completed as opposed to the total amount of work assigned
- if possible, use class discussion instead of workbook or reading assignments
- explain concepts orally, refrain from using graphs, maps, etc.
- test orally, provide opportunity for learner to respond orally

Suggestions for Working within the Mainstream--Auditory Domain

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- when giving instructions, maximize visual modes of presentaion
- ensure your speech patterns/enunciation is of high quality
- use simple grammatical structures and speak slowly
- make sure learner is paying attention when auditory instruction begins; a simple tap on the shoulder may accomplish this objective
- if appropriate, employ programmed learning since this instructional technique does not require listening skills

Suggestions for Working within the Mainstream--Motor Domain

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- for a written or copying assignment, use paper with lines spaced farther apart than normal
- give the learner the option to dictate reports/assignments rather than write them
- give the learner the option of responding verbally on tests
- allow an additional amount of time to complete an assignment when appropriate or shorten assignments when there is a great deal of writing or copying required
- try not to accentuate clumsiness (e.g. in physical education, involve the learner in non-competitive activities, allow this learner to develop more coordination without fear of ridicule or embarrassment)

Suggestions for Working within the Mainstream--Attending Domain

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- minimize any and all competing stimuli to the task at hand (consider rearranging environment if necessary)
- remove all unnecessary distracting materials from the learner's desk
- if possible and appropriate, use cubicles as a learning environment
- be sure that the learner is placed physically within the educational setting where there are the least number of distractions between the learner and the information/processes being shared
- eliminate all unnecessary noise (use cotton balls if the task does not require hearing)
- if internal distractor is hunger, insure that the learner receives something to eat at criticial times
- make sure the seating and desk arrangement is comfortable
- check the quality of the paper of your reading

materials to see if print on subsequent pages show through; if the print does show through, it could be a distraction

- with a reading task, use slotted sheets to reveal only part of the page at a given time
- with mathematical tasks, break up problems into sets of four instead of sets of twenty
- accentuate stimuli to which the learner is supposed to attend (e.g. increase lighting, use materials with high appeal, bright colors).

Suggestions for Working within the Mainstream--Conceptual Domain

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- do not use ambiguous words--use concrete terms
- choose a communication level within the learner's ability
- use visual demonstrations, incorporate gestures with words when delivering instruction
- base grades on something other than classroom participation; the learner is often afraid of being ridiculed in the presence of others.

LEARNERS WHO ARE CULTURALLY DIFFERENT AND/OR DISADVANTAGED

Definition

Within this category we find learners who have academic, socioeconomic, or other disadvantages and the effects of the disadvantage prevent the learner from succeeding in regular educational programs.

Classification

These learners can be classified in one or more of the following categories:

Academic disadvantage. This category involves an educational deficiency which manifests itself in different areas of learning.

- Language deficiency. This category includes speaking and comprehension. These learners experience problems with verbal communication to the extent that their ability to learn is significantly decreased. Here a learner might have difficulties with both primary and secondary languages, display poor speech patterns, and might be incapable of using language effectively within the educational setting.

- Reading/writing deficiences. These learners experience problems with reading and/or writing skills to such a degree that their ability to learn is significantly reduced. Here we would fine a learner with a limited vocabulary coupled with poor reading or writing skills.

- Deficiences in calculation. Here we find learners whose educational background in mathematics was not sufficient to allow them to perform at skill levels necessary to succeed. These learners might have problems competing with their peers in mathematics and might have serious problems understanding mathematical concepts.

Socioeconomically disadvantaged. These learners with their background and experience develop behaviors which limit their ability to succeed in school. Two basic behavior patterns have been identified:

- Overtly agressive, defiant behaviors. Disruptive and/or antisocial behavior is common with these learners. They are often unrestrained in their behavior, repeatedly try to dominate the classroom activity, and become involved with the criminal justice system to a greater extent than their peers.

- Withdrawn, inactive behavior. Within the learning situation, this learner exhibits an unusual lack of participation or response. He/she may have a very negative attitude and/or no interest in school or learning, might be indifferent, discouraged, and lack motivation, and very often possesses a very poor self-image in relation to environment.

Economically disadvantaged. Purely economic reasons are at the foundations of the difficulties inherent within this groups of learners. Often this learner's basic primary needs are not being met. He/she may be a victim of malnutrition, may be absent from school because of lack or proper attire or inappropriate uniform for a certain activity, and may appear to be unclean and neglected.

Causes

Three approaches have been defined by researchers as to the effects that poverty and different cultural background have upon the learner: biomedical, cultural deficit, and cultural difference positions.

Biomedical position. Because of impoverished living conditions, health care and nutrition before and after birth, may be inadequate. These circumstances may limit the ability of learners found in this environment to successfully function within the school. Malnutrition and undernutrition may cause deficiencies in the information processing areas. Undernutrition and malnutrition may also result in a higher susceptibility to illness that disrupts education for long periods of time.

These learners, because of their often unsafe living environments, are more susceptible to physical injuries. Crowded streets and the absence of recreation areas increase the probability of accidents.

Cultural deficit position. With disorganized and impoverished physical and family environments, a learner's sensory, social, and language situation may be inadequate. These environments may fail to provide the quality and variety of stimulation necessary for development in these areas.

Cultural difference position. Cultural deficit versus cultural difference is the issue addressed here. The argument is that a culturally different child possesses the same basic competencies as his/her white middle class American counterpart but that the two learners express their competence in different ways appropriate to their home environment. The culturally different child, aside from the language problems generated by being raised in a non-standard English speaking family, may also have different social norms. Simple interpersonal styles such as eye contact, speed and loudness of speech, patterns of showing respect or disrespect for elders can vary sharply from group to group. Often the culturally different student is interpreted as being hostile or uncooperative by his/her middle class teacher when in fact the behavior is acceptable and reinforced in his/her own cultural setting. The teacher must develop a sensitivity to these cultural differences and the problems generated by having to conform to two different sets of norms simultaneously.

Observable Characteristics of a Learner with an Academic Disadvantage

Learners within this major grouping and within each cateogry tend to display certain behavior patterns and function in specific ways within the school environment. The following classifications and behavior patterns displayed will help to further identify these learners. Within this grouping we find learners who may have language, reading, writing, and/or problems with calculation.

A learner with a language problem may:

- tend to avoid speaking, and when he/she does speak, usually responds with single words or short phrases
- have problems making transitions between primary and secondary langauge
- be unable to follow a series of instructions; instructions must be given one at a time
- have difficulty constructing a sentence and using proper pronunciation.

A learner with reading/or writing problems may:

- have difficulty understanding the meaning of written instruction
- read very slowly so that he/she falls far behind peers
- possess a vocabulary which is insufficient to the extent that it hampers classroom achievement
- has difficulty expressing thoughts in writing.

A learner with problems with calculation may:

- not be able to do tasks associated with mathematics nor transpose formulas to classroom problems in occupational education
- be incapable of applying mathematical concepts.

Suggestions for Working within the Mainstream--Language Problem

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- if a difference in language expression and usage exists, accept the situation and do not "put down" the learner for this difference
- design role playing situations to provide meaning and reality to what is being taught within the classroom; this will encourage participation and allow the learners the opportunity to share different perspectives concerning an issue; it will also encourage verbalization
- create opportunities for language deficient learner to share and explain his/her own language and culture; value cultural diversity and richness as a classroom norm

- avoid using colloquial (and untranslatable expressions without explanation)
- when instructing, develop skills by using concrete terms/examples/techniques/procedures, etc.
- do not ridicule or call attention to any language deficiency the learner may display
- refer learner to language specialist if this learner is not already receiving special educational services
- create opportunities for the learner to experience success in non-speech related activities
- create a learning atmosphere in which the learner may feel comfortable: initially ask questions which elicit one word answers

Suggestions for Working within the Mainstream--Reading and/or Writing Problems

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- scan instructional materials for difficult vocabulary--simplify when necessary
- create the opportunity for the learner to respond using the verbal domain as opposed to writing
- when instructing, develop skills by using concrete terms/examples, avoid abstractions whenever possible
- do not rely on the reading or writing domain for instruction and/or testing (e.g. use alternative modes like movies, tape recordings, slides, maps, etc.)
- provide or develop curriculum materials appropriate to the reading level of the learner
- use peer tutors whenever possible to cut down on the quantity of required reading
- if the learner has difficulty completing assignments on time, set up times limits within which the learner can complete the task.

Suggestions for Working within the Mainstream--Problems in Mathematics

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- order or develop mathematics curriculum, exercises or problems at the functioning level of the learner
- be sure that the context or mode of presentation of the problem is in a setting or language that the learner can relate to or has had some experience with
- base evaluation of learner's performance on only the problems that have been completed; (e.g. if you give the learner 50 problems to complete and he/she finishes only 35, base your evaluation on 35).

Observable Characteristics of a Learner with a Socioeconomic Disadvantage

Within this grouping, we find learners who display either overly aggressive, defiant behavior or withdrawn behaviors, and who become inactive learners.

A learner with overly aggressive, defiant behavior may:

- be unable to cope with being accepted as part of group--rejects acceptance
- creates fantastic stories
- be disruptive in school and often fights with peers
- questions teacher's motives
- have difficulty making and keeping friends
- behave socially inappropriately
- search for and establish failure for self.

A learner with withdrawn, inactive behavior may:

- run away from problems
- remove himself/herself from peers and may be reluctant to participate in competitive activities
- be passive in class
- be discouraged when confronted with easy tasks and declines any direction given by the teacher.

Suggestions for Working within the Mainstream--Overly Aggressive, Defiant Behavior

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- develop curriculum in small sequential steps which provide the opportunity for the learner to experience success frequently
- praise the learner for success frequently
- work with the learner to establish self-defined goals and then work with the learner to achieve these goals (establish a procedure for defining daily, weekly, and long range goals)
- design classroom activities for participation by everyone so that group unity within the classroom is developed
- create "learning by doing" activity whenever possible
- reduce the number of rules/restrictions that have been created to exclude any which might be irrelevant to the learning process (e.g., sitting still, leaving the room for the lavatory without permission, chewing gum)
- make instruction more relevant by inviting representatives from industry with whom the learners can also broaden their career goals
- underscore the practicality of what is learned in the classroom
- do not rely upon discipline to solve problems within the classroom; discipline is not always the answer with these learners, notice behavioral changes with the learner, discuss these changes with him/her and if unable to work through behavior problems with the learner, seek help from those who can provide support and counseling assistance
- create structure-establish a pattern of routines within the classroom
- do not criticize, punish, ridicule before peers
- create testing opportunities that are "activity" oriented rather than "written" oriented
- when making presentations, use techniques which appeal to as many senses as possible (e.g. slides, movies, tape recorders, maps, etc.)
- do the unexpected (e.g. walk aroud the room and ask questions frequently)

- use quick, highly motivated periods of learning
- avoid direct confrontations of wills; you can't force good behavior and will probably create an enemy.

Suggestions for Working within the Mainstream--Withdrawn, Inactive Behavior

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- help to eliminate the self-defeating attitude of the learner by expecting him/her to succeed
- break down tasks into small segments to assure an opportunity for completion and success; reinforce and praise those parts which are well done, even if the whole task is not completed
- work with the learner to establish self-defined goals; then work with this learner to achieve these goals
- praise the learner for success frequently, creating an atmosphere of progress and growth
- develop activities within the classroom which foster group discussion (thus cutting the risk of failure and fear of being challenged for this learner)
- make instruction more relevant by inviting representatives from industry with whom the learner can identify into the classroom so that the learner can also broaden his/her career goals
- underscore the practically of what is learned in the classroom
- do not critize, punish, ridicule peers
- foster and help to develop peer relationships both within the classroom and in outside clubs/organizations
- create testing opportunities which are "activity" oriented rather than "written" oriented
- when making presentations, use techniques which appeal to as manysenses as possible (e.g. slides, movies, tape recorders, maps, etc.)
- do the unexpected (e.g. walk around the room and ask questions frequently)
- use quick, highly motivated periods of learning

- if the learner becomes discouraged, give extra attention/help and remain understanding of failures.

Economically disadvantaged. A learner who is economically disadvantaged may:

- look sickly, lacking proper nutrition
- be unclean and unkempt in appearance
- have high absenteeism record because of lack of money to buy appropriate clothing to attend school.

Suggestions for Working within the Mainstream--Disadvantaged

The suggestions listed below are appropriate for both the vocational shop/classroom and also for the academic areas:

- work with the school guidance counselor and social service agency personnel to meet the basic economic needs of this learner
- work with the school guidance counselor within the home environment with parents and other family to encourage member's regular school attendance, proper nutrition and dress.

We have taken a close look at the special needs learner, his roots, behaviors, attitudes, and ways in which the vocational teacher might address his specific educational needs within the mainstream.

With this very basic understanding of the special needs learner, we now proceed to Section Two of the handbook--Adapting the Instructional Environment for Special Needs Learners.

REFERENCES

Altfest, Myra; Hartley, Nancy; and Rocco, Patricia. Vocational Education for Students with Special Needs, A Teacher's Handbook. Department of Vocational Education, Colorado State University, Ft. Collins, 1975.

Appleby, Judith A.; Dahl, Peter R.; and Lipe, Dewey. Mainstreaming Guidebook for Vocational Educators. Salt Lake City, Olympus Publishing Company, 1979.

Hewett, Frank M.; and Forness, Steven R. Education of the Exceptional Learner. Boston: Allyn and Bacon, Inc., 1977.

Little Gregory. Mainstreaming in Vocational Education. Module #5 from a series of modules developed for doctoral dissertation and presented as an inservice course at Smith Vocational School, Northampton, MA., Spring 1980.

Rosenberg, Marshall B. Diagnostic Teaching. Seattle: 1968 Special Child Publications.

Trainer's Manual for Section One — The Special Needs Learner

This handbook was designed for use as an inservice professional development resource for teachers working with special needs students mainstreamed in vocational environments. A presumption underlying its organization and content is that a competent teacher or administrator on staff in the school acting as an inservice teacher educator would supervise the organization, operation, and teaching of the inservice learning experiences.

Further, it was presumed that the trainer would work with staff development personnel in the regional offices of the Massachusetts Department of Education. Department personnel are knowledgeable about the handbook and can assist local schools in developing an inservice training process. They can also assist the local schools to generate support funds through the Massachusetts State Department of Education Commonwealth Institute for Inservice Education.

Trainer's Manual For Section One — The Special Needs Learner

OBJECTIVE OF THIS SECTION

To provide for the vocational teacher a series of learning experiences so that he/she might better understand the needs, attitudes, and behaviors of the special needs learner and be able to better serve these learners in a mainstreamed vocational setting.

INTRODUCTION

This first handbook section, "The Special Needs Learner" has been designed to be used as a resource for the classroom teacher faced with dealing with special needs learners on a daily basis. The content presented here should provide the foundation for a better understanding of these learners. In addition, this section with selected activities can also be used as a component of an inservice training program for educational professionals serving special needs learners. The selected activities now follow.

OUTLINE OF SELECTED ACTIVITIES FOR AN IN-SERVICE EDUCATIONAL COMPONENT

1. Filmstrip, movie, tape presentations used as an introduction to large group addressing a specific category of special needs learner.
2. Large group presentation of the attitudes and behaviors of the specific group of special needs learner (taken from curriculum content in the handbook).
3. Small group activity (problem solving ways to deal with this specific special needs learner within the mainstream).
4. Large group processing as a result of small group problem solving.
5. Large group presentation of the ways to serve the specific special needs learner within the mainstream (Refer to curriculum content within the handbook).
6. Miscellaneous related activities to reinforce learning about specific special needs learner.

ACTIVITIES FOR PRESENTATION OF SPECIFIC CATEGORIES OF SPECIAL NEEDS LEARNERS

1. Filmstrip, movie, tape presentations addressing specific categories of special needs learners. In a large group as an introduction to a specific category of special

needs learner, we suggest using an audio-visual presentation designed specifically for inservice education. There are a number of these materials already developed (see resources section four of this handbook) but an excellent resource to use is a series of eight filmstrips with accompanying cassettes developed by the Wisconsin Vocational Studies Center entitled: *Better Than I Thought*. This series of filmstrips addresses eight different categories of special needs learners and is an excellent introduction to the special needs learner.

Large group presentation-time depends upon length of movie, filmstrip, etc.

Some questions to consider at the conclusion of this audio-visual presentation:

a. How did the problems of this special needs learner affect you?
b. Can you identify with anyone in the presentation?
c. Have you experienced this situation at home, school, community?

2. Large group presentation of the attitudes and behaviors of the specific special needs learner.

Large group presentation-

15 minutes

Refer in this handbook section to the specific subsection of special needs learner you are addressing. By reading the content materials on the definition, classification, causes, and characteristics of the specific special needs learner, you can structure a presentation to your large group in which you share pertinent information about this learner. You may also want to draw upon the knowledge and understanding of a special needs person on your staff who will be willing to work with you and make this presentation with you. Be sure to stress that in identifying, defining, and describing special needs learners, we are not always talking about homogeneous populations. There will always exist differences among individuals and certainly not all of the identifying characteristics which are outlined apply to all learners within each category. This consideration is true of all categories of special needs learners.

Some questions to promote discussion following presentation:

a. Do your experiences with this specific type of special needs learner follow a similar pattern? If not, how are your experiences different?
b. Can you add any additional input to the background, needs, and/or behaviors of this specific special needs learner?

3. Small group activity (problem solving ways to deal with this specific special needs learner within the mainstream). Divide your large group into small groups of not more than six individuals. Have them imagine that they are serving this specific special needs learner

in the mairstream of their classroom. Ask them to generate five different suggestions to ease the learning process within the mainstream for the specific type of special needs learner. (Generate five ways to meet the specific learning needs of this category of special needs learners.) Ask the groups to elect a spokesperson who will report the five suggestions once this activity is completed.

Small group
activity -

15 minutes

4. Large group processing of results of small group problem solving.

Bring your small groups back into one large group again. Ask the spokespersons for each small group to share the different ways his/her group members have generated to better serve this specific category of special needs learner within the mainstream. Record these suggestions on a blackboard.

Large group
processing -

20 minutes

Some questions to consider for this processing activity:

a. Do these suggestions meet the specific educational needs of the learner?
b. Do these suggestions ease the learning process for this specific special needs learner?
c. Do these suggestions isolate the special needs learner from the other learners in any way?

5. Large group presentation of the ways to serve the specific special needs learner within the mainstream.

Refer in this handbook section to the specific subsection of special needs learner you are addressing and read the section "suggestions for working with this special needs learner within the mainstream." You can structure a presentation to the large group which shares some ways of serving this category of special needs learner within the mainstream as presented in this handbook. Once again, you may want to draw upon the knowledge and understanding of a special needs person on your staff who would be willing to work with you and make this presentation. You may also want to prepare a handout for the group which lists ways of dealing with this specific special needs learner within the mainstream.

Large group
processing -

15 minutes

a. Do you agree with these suggestions for working with special needs learners within the mainstream? Why or why not?
b. Are these suggestions practical? Why or why not?
c. Which of these suggestions are you able to use within your classroom?

6. Miscellaneous related activities to reinforce learning about specific special needs learners.

To reinforce the learning which has occurred during the first five activities, exercises can be generated which allow the workshop participant first-hand experience of dealing with a special educational need. By creating a learning experience of this nature, you are increasing, in a personal way, the participants' sensitivity to the special educational needs of these learners. The next two examples outline how to accomplish this goal.

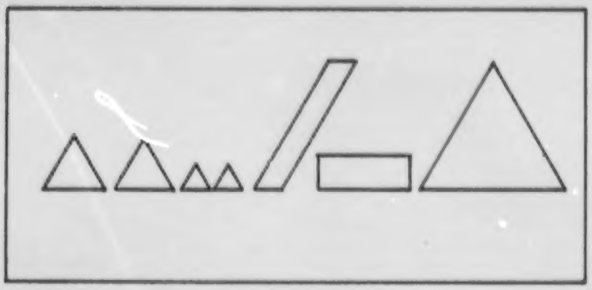
Example #1

OBJECTIVE

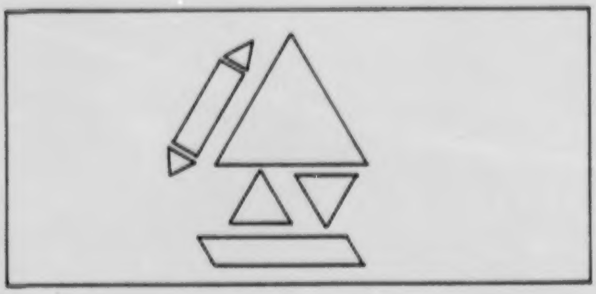
To create an experience for workshop participants where they function as an auditory learner (that is a learner experiencing difficulty processing information through the visual, motor domain, or other domains).

a. Divide the large group into [illegible] groups of four. One group member will give instructions and three will receive instructions. Be sure that the instruction giver is away from the instruction receivers.

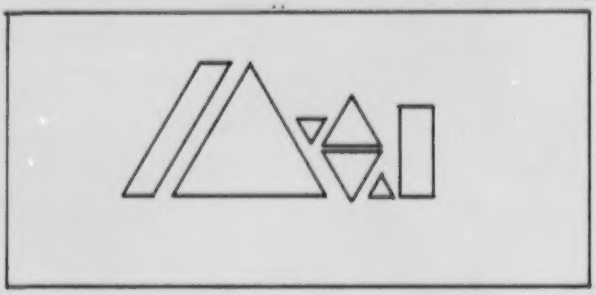
b. Distribute to the instruction receivers a packet containing the following shapes cut out of paper or cardboard.



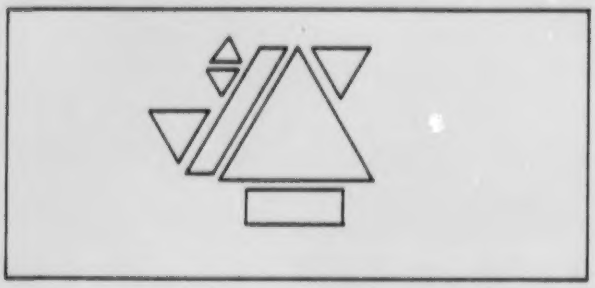
c. Distribute to each of the instruction givers a diagram of the following shapes composing such patterns as:



or



or



or any other configuration.

INSTRUCT THE INSTRUCTION GIVER TO KEEP THE DIAGRAM HIDDEN FROM THE INSTRUCTION RECEIVERS

d. Distribute to each of the instruction receivers a manilla folder to be used standing on end as a wall within which they are to work. Each instruction receiver is to work within his/her own area and not look at the work of other instruction receivers.

e. Announce that this is a timed assignment. The group has three minutes to complete the task. Tell each instruction giver to describe to his/her instruction receivers how to complete the visual pattern of shapes he/she has received. Be sure to stress that only verbal instructions are allowed. No gestures, hand movement or whatever. There is to be no verbal communication other than the instructions of the instruction giver.

f. Begin the task and allow the group three minutes to work. End the exercise and ask the instruction receivers to compare their pattern with the pattern of the instruction giver.

Questions for this activity

a. How many individuals copied the master pattern exactly?
b. How did the instruction receivers feel relying on only the auditory channel to process information?
c. What other channel would have helped to complete the task?

Example #2:

An excellent way to acquaint workshop participants with various handicaps is to create an activity whereby they experience a handicapping condition as closely as possible. Refer to the Second Section on "adapting the instructional environment. Within that trainer's section are planned activities where a workshop participant uses weights, crutches, wheelchairs, and/or blindfold to simulate a handicap. Suggested questions to promote discussion are presented.

An excellent resource to help design activities similar to those presented within this section, is members of the special education staff within your school or regional office. Utilizing this resource to design learning experiences can be an interesting and fun activity.

Section Two - Adapting the Instructional Environment For Special Needs Learner

by Nancy Gauzuk

OBJECTIVES OF THIS SECTION

Vocational educators will develop a flexible learning environment to meet the varying learning needs of all students in their programs. To accomplish this goal, they will learn how to set realistic learning objectives for special needs learners. They will instruct the slow learner while at the same time maintaining instructional services to other students within the classroom who are progressing at a faster rate. They will learn how to deliver instruction which accommodates the different functioning levels of special needs learners by using different instructional techniques and materials which can be designed to meet the specific needs of the special needs learner.

INTRODUCTION

Students are characterized as having "special educational needs" if they require additional and/or special assistance to achieve their potential in a regular educational setting. With additional assistance, they can and do succeed. Many vocational teachers with a history of successful teaching experience are frustrated to find that their usual instructional content, materials, facilities, and methods are not appropriate or effective with special needs learners. A greater flexibility of time, facilities, materials, and instruction is needed, along with a shift in the role of the teacher from information source to designer of appropriate learning tasks in an appropriate learning environment. The vocational educator becomes an instructional manager. This chapter will demonstrate some ways of adapting the instructional environment to assist students with special learning needs. The following types of adaptations will be discussed: (1) adapting instructional content; (2) adapting instructional materials; (3) adapting teaching strategies; and (4) adapting the physical environment.

ADAPTING INSTRUCTIONAL CONTENT

Meeting the varying needs of all the students in a vocational class is facilitated by a competency-based, behavioral objective, or skills achievement curriculum in which there is a clearly stated hierarchy of competencies, objectives, or skills. What the student must know or do to master the objectives is also clearly stated. The hierarchy should be sequenced so that the most fundamental aspects of the occupational area occur early in the instructional program, and the fundamental skills should be clearly identified. This allows the students who leave the program early, or those who master relatively few skills to nonetheless be prepared for entry level employment in the area.

In a competency-based curriculum, instructional content can be broken down into relatively small units under specific objectives. Within each competency or objective, instructional content and requirements and mastery can remain the same for all students. What may actually change or vary from student to student is the amount of time required to gain a particular competency, and consequently the number and complexity of competencies gained during the school year. Here are two examples of objectives dealing with relatively small segments of information, or very special skills:

> The student will pin two pieces of fabric together in preparation for sewing a seam, correctly matching nap, side, and design of the fabric.
>
> The student will use a measurement tool and measure a linear object, accurate to the nearest 1/8 inch.

In developing objectives, keep in mind that good performance or behavioral objectives describe what the student must be able to do at the end of the learning experience in observable, behavioral terms (the student will measure a linear object). Good objectives specify equipment or tools needed to perform the task.(the student will use a measurement tool...) Objectives should specify the acceptable level of performance (...accurate to the nearest 1/8 inch).

Instructional content within objectives need not vary from student to student, although the amount of time to reach mastery may. Here are some steps to help you identify skills which require primary focus:

1. List all the skills, competencies, or objectives covered in your course of study.
2. Order the skills hierarchically so that those which should be mastered first are listed first.
3. Check those fundamental, basic skills necessary for entry-level employment.

You may end up with 100 skills in your course of study, with 50 of those identified as fundamental, basic skills. These 50 skills then are ones which students should concentrate on mastering first. Some students may not progress past these basic skills. Other students may master all 100 skills.

While the initial segmentation or a course of study into discrete competencies requires some effort, once this is accomplished, successful integration of students with different capabilities and learning needs into the regular classroom, is possible.

The following six pages demonstrate the way one school (Montachusett Regional Vocational Technical School) has implemented this kind of adaptation through modifying job descriptions from the Dictionary of Occupational Titles established by the U.S. Department of Labor. The fundamental, basic skills form the basis for a limited trade certificate program.

In vocational areas such as machine shop, the vocational staff have identified skills through the Dictionary of Occupational Titles. See below for an example describing one such position, an engine-lathe set-up operator. The most fundamental basic skills are identified as specific objectives in the modification and are shown on pages 47, 48, and 49. These objectives define the student's quarterly report and individualized education plan. The completion of these fundamental, basic skills form the basis for a limited trade certificate program.

EXAMPLE 1

EXAMPLE: JOB DESCRIPTION, DICTIONARY OF OCCUPATIONAL TITLES (D.O.T.)
MACHINE LATHE TOOL SET UP OPERATOR

ENGINE - LATHE, SET-UP OPERATOR, TOOL (mach. shop) 604.280. precision-lathe operator; tool-room-lathe operator.

Sets up and operates engine lathe to perform machining, such as turning, facing, boring, and threading on rotating metal workpieces, such as plug gauges or machine tool, or die parts, analyzing specifications and deciding on tooling according to knowledge of lathe operations: Studies blueprint or layout on workpiece or visualize machining to be done, and plans sequence of operations. Selects method of holding workpiece. Lifts workpiece manually or with hoist, and positions and secures it on faceplate, in chuck jaws, or between centers, using clamps and wrenches and verifying position with measuring instruments, such as calipers, height gauges, and dial indicators. Selects feed rate, cutting speed, depth of cut, and cutting tool for each operation, according to knowledge of metal properties and shop mathematics. Positions and secures cutting tool in tool holder on crosslide or tailstock. Moves controls to set cutting speed and feed rate and to position tool in relation to workpiece. Starts machine and turns handwheels to feed tool to and along workpiece, or engages automatic feed. Turns valve handle and directs flow of coolant against tool and workpiece. Verifies conformance of machines workpiece to specifications, using measuring instruments, such as micrometer, calipers, and depth gauges. May operate large engine lathe to machine large objects, such as ship propeller shafts, and be designated LATHE SET-UP OPERATOR, LARGE. May offset position of tailstock to machine tapered surfaces. May mount gears, move levers, and engage threading dial to machine threads, using knowledge of thread cutting. May machine teeth on cutting tools, or duplicate contours from templates or models, using relieving or tracing attachments. May operate bench grinder to sharpen tools. May work nonmetallic materials, such as plastics. May be required to have specialized experience with particular materials, product, precision level, machining process, or size, type or trade name of machine.

These pages were reprinted with permission from Montachusett Regional Vocational Technical School, Fitchburg, Massachusetts.

EXAMPLE
MODIFICATIONS TO D.O.T. DESCRIPTION, SPECIFIC OBJECTIVES
MODIFICATIONS REGIONAL VOCATIONAL TECHNICAL SCHOOL
1050 Westminster Street
Fitchburg, Mass. 01420

Date

Specific Objectives (Lathe Operator)*

Student's Name

Instructor's Name

The following are the specific objectives this student will be assigned the four quarters of this school year. A quarterly report will be issued the end of each marking period stating which objectives the student has completed and whether or not the student is on schedule.

OBJECTIVES	QUARTERS			
	1st	2nd	3rd	4th
I. LAY OUT				
1. Preparing Surface				
2. Combination Square Set				
3. Dividers				
4. Surface Gauges				
5. Height Gauge				
6. Center Punch				
II. LATHE SET UP				
1. Safety				
2. Use of Dials				
3. Care & Lubircation				
4. Install Remove:				
A. Chucks				
B. Jaws				
C. Collect Adapt.				
D. Cutting Tools				
E. Centers				
F. Sleeves				
5. Align Tailstock				
6. Compound Positioning				
7. Holding Lg. Drill:				
A. In Tailstock				
B. On Center				
8. Reaming				
A. Hand				
B. Machine				
9. Tool Post Grinder				
10. Micrometer Shop				

*Student is only required to complete Intermediate Blueprint Reading

OBJECTIVE	QUARTER			
	1st	2nd	3rd	4th
II. LATHE-OPERATION				
1. Speed & Feeds				
2. Grind Tools				
3. Regrind Tools				
4. Facing				
5. Centering				
6. Straight Turning				
A. Chucks				
B. Centers				
C. Mendrels				
7. Hold Tolerences				
8. Shoulder Turning				
9. Knurling				
10. Cut Off				
11. Necking				
12. Boring:				
A. Shoulder Turn Int.				
B. Facing Int.				
13. Filing Safety				
14. Single Point Threading:				
A. Internal				
B. External				
15. Taper Turning				
16. Steady Rest				
17. Follower Rest				
18. Simple Form Turning				
19. Thread Cutting:				
A. Die				
B. Tap				
20. Polishing				
XVI. PRECISION TOOLS				
1. Use & Care				
2. Rule Reading				
3. Micrometer:				
A. Inside				
B. Outside				
C. Depth				
4. Telescope				
5. Small Hole Gauge				
XIII. POWER HACK SAW				
1. Set Up				
2. Safety				

OBJECTIVE	QUARTER 1st	2nd	3rd	4th
II. POWER HACK SAW				
3. Care & Lubrication				
4. Blade Installation				
5. Coolant				
6. Cutting Various Lengths				
III. MISC				
1. Use of Machinery Handbook				
2. Formulas				
3.				
4.				
5.				
IV. PRACTICE WORK				
1.				
2.				
3.				
4.				
5.				

8

EXAMPLE

QUARTERLY REPORT FOR MODIFICATION OF D.O.T. DESCRIPTION

This report is to be developed at the end of each marking period and sent to the parents with a copy to the special needs office.

Student's Name	Title of Limited Certificate

I. This student has completed the following objectives towards the limited certificate.

II. This student ______ is, ______ is not on schedule.

COMMENTS

Please see attached updated student progress chart.

Instructor's Signature

EXAMPLE

TRADE CERTIFICATE

MACHINE SHOP - LIMITED TRADE CERTIFICATE PROGRAM

Title of Certificate: Engine-Lathe Set-up Operator
(D.O.T. #604.280)

It has been determined that ______________________, ______________,
Student's Name Core #
will be a candidate for the above certificate based on information recently presented at a meeting held at Montachusett Regional on ______________________.
Date of Meeting.

The core team recommends that this student be assigned to this limited program as an Engine Lathe Set-up Operator and attached is the list of required objectives needed to complete this program.

This student and parents will receive quarterly reports from ______________________
Instructor's Name
beginning at the end of the _____ 1st _____ 2nd _____ 3rd _____ 4th quarter stating which specific objective the student has been able to complete.

By signing below, I signify that I agree with the above

______________________ Student's Signature

______________________ Parent's Signature

______________________ Shop Instructor's Signature

______________________ Counselor's Signature

______________________ Chairperson's Signature

ADAPTING INSTRUCTIONAL MATERIALS

Some of the instructional materials you have been using in your regular vocational classroom may not be appropriate for special learning problems. If you have a competency-based curriculum with clearly defined objectives and instructional units, you can identify the areas in which students are having problems, and focus on adapting the materials pertaining to those specific areas. Modifying materials which are used in the regular class is advantageous in that all students use essentially the same materials.

In many cases, adapting the format of the instructional materials is appropriate. For example, if your primary materials are print and you have a visually impaired student, you will need an audiotape or Braille transcription of these materials. Descriptions of pictures should be included in the transcriptions. If the student's visual impairment makes it possible, enlarge diagrams or charts or simplify pictures. If you have a hearing impaired student, provide a set of lecture and discussion notes. When viewing films, select captioned ones or provide an interpreter. Focus on visual rather than verbal instruction whenever possible.

Many special needs learners, particularly learning disabled, hearing impaired, and retarded students, have significant language and reading problems. They may have trouble processing written information. Most high school textbooks have not been written for students with learning problems.

Refer to section one of this handbook for some suggestions for working within the vocational mainstream with special needs learners.

The following modifications can help to amplify or focus learning from regular texts and lectures:

- Prepare study outlines or summarize important information from texts or lectures
- Provide a vocabulary list to accompany the text or lecture
- Use pictorials to describe concepts, vocabularies, information, and techniques for performing tasks.

The following page provides an example of a study set--outline, vocabulary, and questions--written to accompany and amplify a regular high school text.

EXAMPLE
A STUDY SET

THE HOWS AND WHYS OF COFFEE BREWING

(This study set was developed to accompany a lesson of the same title in ELEMENTS OF FOOD PRODUCTION AND BAKING; Bobbs-Merrill Educational Publishing Co., 1971, which follows on the next two pages).

New Vocabulary

Coffee
Decaffeinated
Drip or Urn Grind
Fine or Vacuum Grind
Regular Grind

The Hows and Whys of Coffee Brewing

A. Coffee
  Use fresh coffee
B. Storage
  Store coffee in a cool, dry place
C. Grind
  Use the right grind for your equipment
D. Water
  Use pure water
  Water temperature should be near 200°F when it reaches coffee grounds
E. Brewing in an urn
  Measure carefully
  Use two gallons of water to one pound of coffee
  Spread fresh drip grind coffee in the filter
  Pour fresh boiling water over the coffee
  Remove filter when water has dripped through

Questions

1. Why is accurate measurement important in brewing good coffee?

2. Should you boil coffee? Why?

3. Is the grind of the coffee important? Why?

EXAMPLE
TEXT TO ACCOMPANY STUDY SET

THE HOWS AND WHYS OF COFFEE BREWING

The Coffee

Use fresh coffee. Ground coffee ages rapidly losing flavor and aroma, the most important assets of good coffee. Coffee should be delivered at least once a week.

Storage

Store the coffee in a cool, dry place. Heat and moisture cause it to become stale rapidly. If possible, store in a refrigerator. Keep it away from other foods--coffee picks up outside odors very quickly.

Grind

Use the grind designed for your equipment. Too fine a grind for the equipment used produce astringent, bitter coffee and too much sediment. Too coarse a grind results in a weak, inadequately flavored beverage. The grind determines the length of time coffee and water should be together.

The following brewing times are for water at about 200 degrees F, evenly distributed over ground coffee (the grind specifications are from Simplified Practice Recommendation R 231-48, U.S. Department of Commerce): fine or vacuum grind, 1 to 3 minutes; drip or urn grind, 4 to 6 minutes; regular grind, 6 to 8 minutes.

The Water

Water should be free from any undesirable elements picked up in pipelines, boilers, water tanks, and so on. *Never brew coffee with water you wouldn't drink. Never brew coffee with chemically softened water.*

Whether coffee is brewed in an urn, a half-gallon type brewing device, or a vacuum coffee maker, the temperature of the water should be as near 200 degrees F as possible when it comes in contact with the coffee grounds.

Brewing in an Urn

Never guess. Accurate measurement is the most important step in brewing good coffee. Use 2--never more than 2 1/2--gallons of water to 1 pound of coffee.

Spread fresh, drip grind coffee evenly in the filter. To obtain good extraction, the layer of coffee should be spread evenly (1 to 2 inches in depth). If a new urn bag is used, rinse it thoroughly in hot water before placing it on the urn bag ring. If the urn is not equipped with a brewing basket, use a gridded riser to assure proper support of the urn bag.

Use fresh boiling water. The urn should be attached only to a cold water line. Be sure the water temperature is 200 degrees F when it comes in contact with the needle.

Example (continued)
THE HOWS AND WHYS OF COFFEE BREWING

Pour the water in a slow, circular motion. This helps assure even extraction. Total contact time must be between 4 and 6 minutes. Brewing time starts when the first water touches the coffee, and ends when the last water has passed through the grounds, and the brewing device is removed. Replace the urn cover between pours to preserve the aroma.

Remove the filter device as soon as the water has dripped through. If the brewing device is left in the urn, steam from the coffee rises, condenses to water, and passes back through the grounds, releasing astringent and bitter materials. Rinse the cloth filter in clear, hot water, then store in cold water until next use.

If all of the water cannot be passed through the grounds within the prescribed brewing time, it may be necessary to place some of the water (up to 40 percent) in the bottom of the urn before brewing. This prevents overextraction and bitterness.

Mix the brew. Draw off the heavy coffee from the bottom of the urn and pour it back into the brew to assure uniform mixing. Mix at least 1 gallon for each pound of coffee used.

Never repour brewed coffee through spent grounds. It only makes the coffee bitter and is a waste of time.

Sometimes the regular instructional materials need to be rewritten or new materials developed to facilitate learning among special needs learners with language, learning, and/or reading problems. The following guidelines can help you rewrite or develop instruction appropriately:

- break instruction into small, discrete chunks
- use specific vocabulary, grammar, and concepts
- use supporting media, particularly pictorial support
- avoid idioms
- provide opportunities for practice and repitition; the following provide examples taken from a regular high school text, rewritten according to the above guidelines.

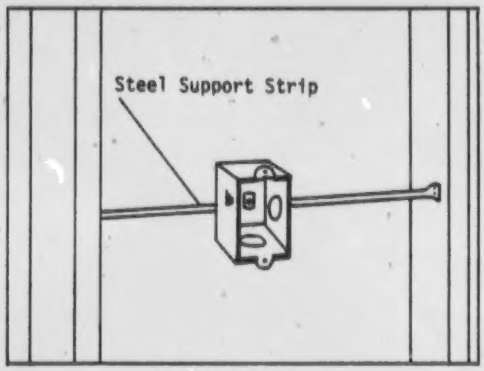
EXAMPLE
TEXT WHICH WILL BE REWRITTEN

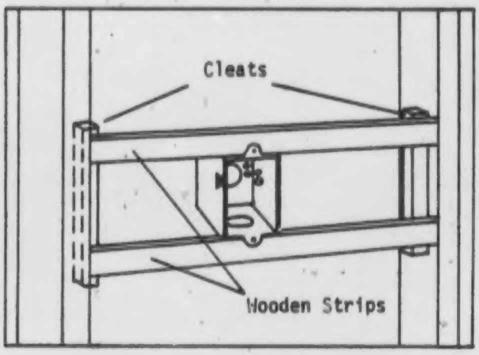
This text is taken from a student workbook used in vocational high school classes (ELECTRICAL WIRING: American Association for Vocational Instructional Materials, 1979).

On the following pages, it is rewritten to make it appropriate for learners with reading and language problems.

Installing Switch Boxes Between Studs

You will sometimes find that you need to mount a switch box or gang boxes at a point that falls between two studs. When that happens, you must mount a support between the studs. It may be a steel support strip with mounting holes punched or two wooden strips at least 1" thick.





Instructions

Mark location for each strip.

Use the switch box as a spacer.

Nail strips in position between studs.

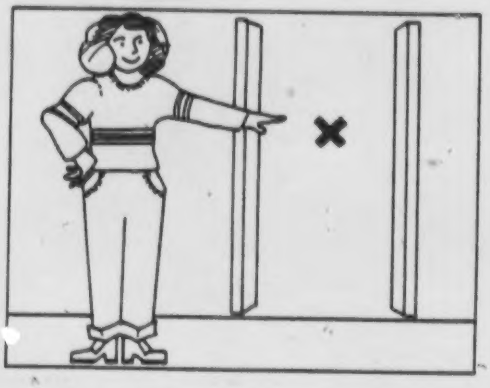
Locate one or more boxes at the desired point on the support.

Fasten box to strip with metal screws or wood screws.

INSTRUCTIONAL MATERIALS REWRITTEN FOR LEARNERS WITH READING AND LANGUAGE PROBLEMS

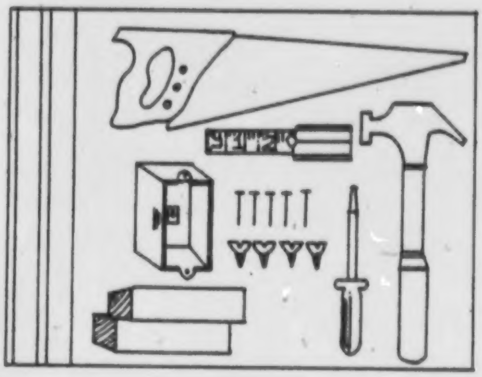
INSTALLING SWITCH BOXES BETWEEN STUDS

Sometimes the switch box must be in a certain place. Maybe the certain place is not near a stud. Then you must put the switch box between two studs.



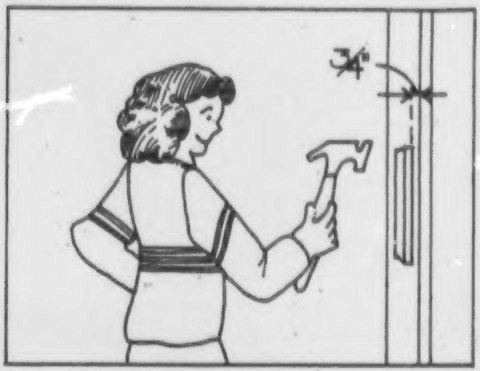
Follow these directions to put a switch box between two studs. You will need:

- 2 wooden strips
- 2 wooden cleats
- hammer
- nails
- switch box
- tape measure
- saw
- wood screws
- screw driver



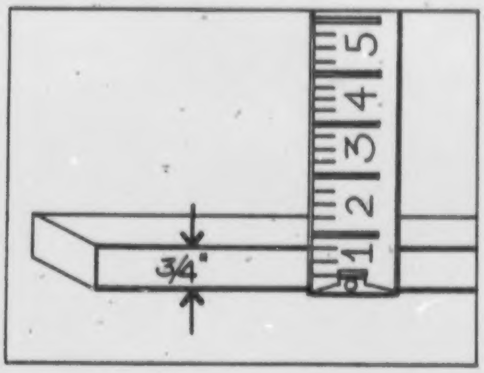
First you must nail a wood cleat to the inside of both studs.

The wood cleat must be 3/4 inch from the front of the stud.



Now you need 2 wood strips.

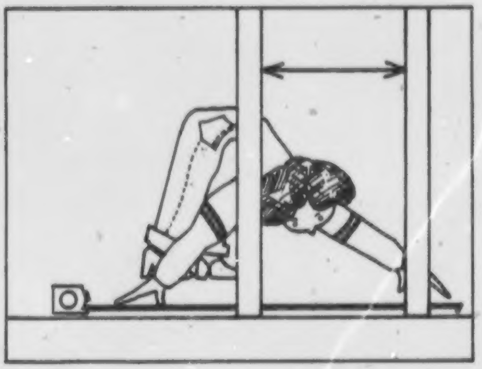
Each strip must be 3/4 inch thick.



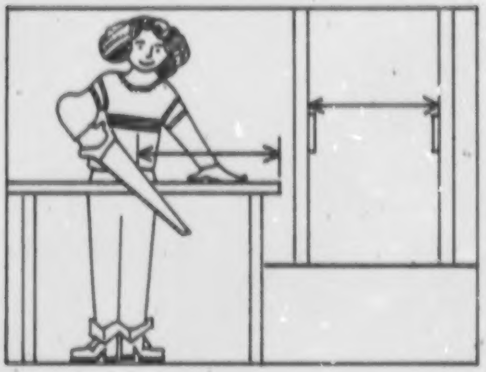
Each wood strip must fit between the studs.

Measure the distance between the studs.

Mark the same distance on each wood strip.



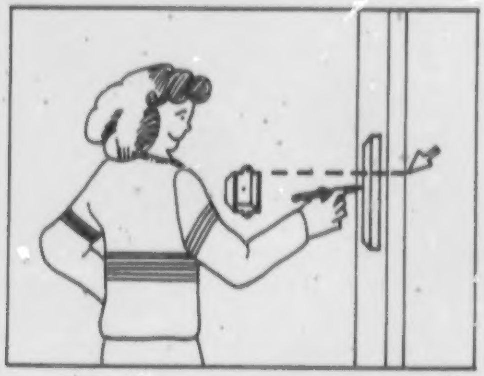
Cut the wood strip to fit between the studs.



How high must the top of the switch box be?

Decide the height.

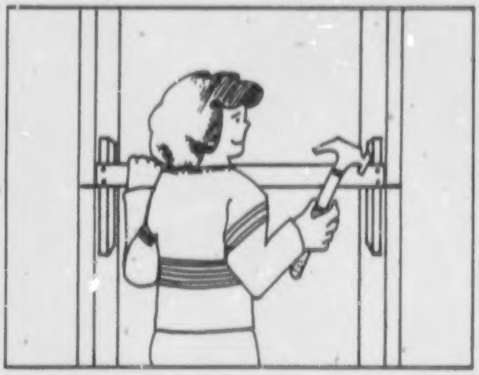
Mark the height on each stud.



Nail a wood strip between the studs.

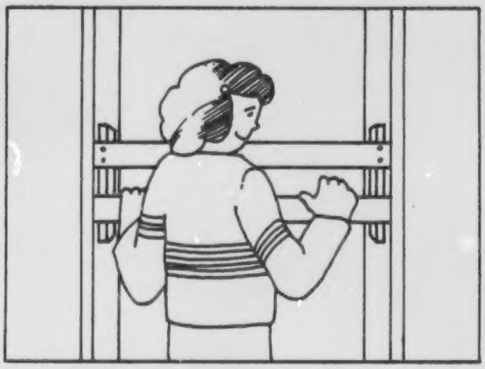
Use your marks on each stud as a guide.

Then you will know where to nail the wood strip.



Put the second wood strip UNDER the first strip.

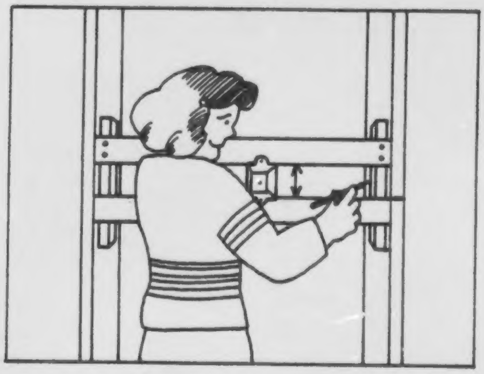
Hold the wood in place.



Hold the switch box BETWEEN the strips. Use the switch box as a spacer.

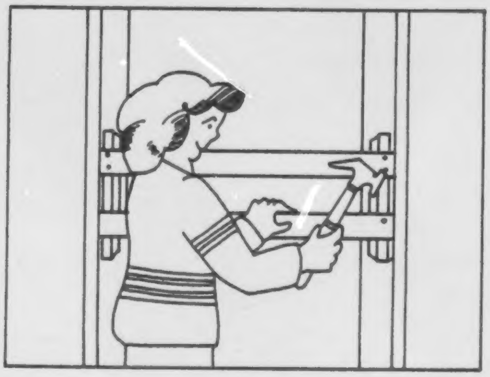
The switch box should just fit in the space between the wood strips.

Mark where the second strip is on each stud.

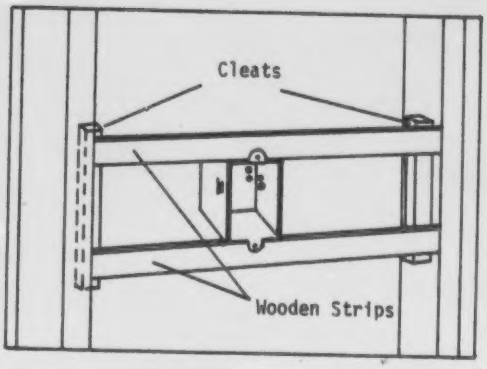


Nail the wood strip to the studs.

Use your marks as a guide.



Now fasten the switch box to the strips with wood screws.

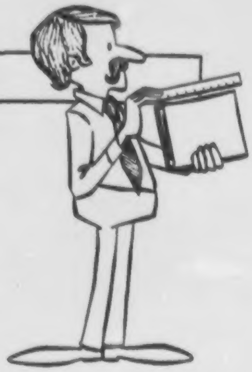


Commercially Available Materials for Special Needs Learners

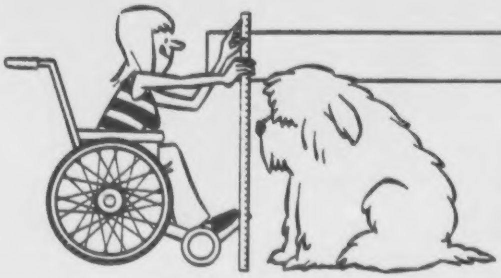
A wide variety of instructional materials have been written expressly to meet special learning needs. Using these materials both assures validated learning materials and frees the teacher from additional time required to rewrite or develop appropriate instructional materials. Section Four--Resources, includes an annotated bibliography of instructional materials developed to meet special learning needs and a resource directory of media and materials support.

The following pages are taken from a student workbook written for secondary students with language and reading problems (Measurement: Length and Area; Joyce Media, in press). Notice that the vocabulary and sentence structures are simple and concrete. Instructions are broken down into small, discrete chunks. There is pictorial support for the directions. Students can follow these general instructions independently to measure any line segment given in 1 inch increments.

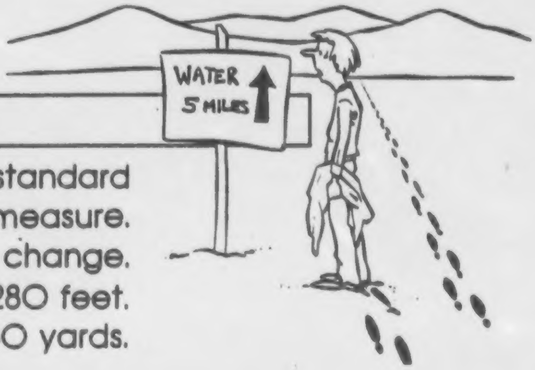
EXAMPLE'
COMMERCIALLY AVAILABLE MANUALS--MEASUREMENT: LENGTH AND AREA



A foot is a standard
unit of measure.
A foot does not change.
1 foot is 12 inches.



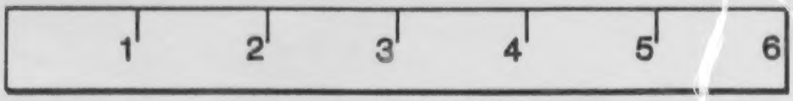
A yard is a standard
unit of measure.
A yard does not change.
1 yard is 36 inches.
1 yard is 3 feet.



A mile is a standard
unit of measure.
A mile does not change.
1 mile is 5280 feet.
1 mile is 1760 yards.

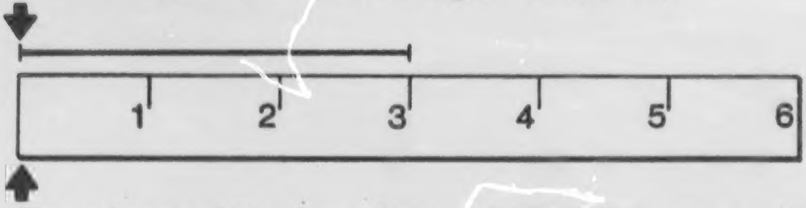
You can measure a line.

You use a ruler.



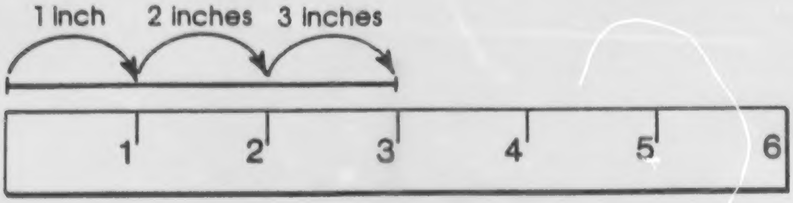
Follow the directions.

Put the ruler and the line together like this.



The ruler and the line always start at the same place.

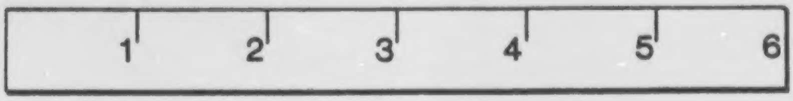
Find the end of the line.
Count the inches.


1 inch
2 inches
3 inches
1
2
3
4
5
6

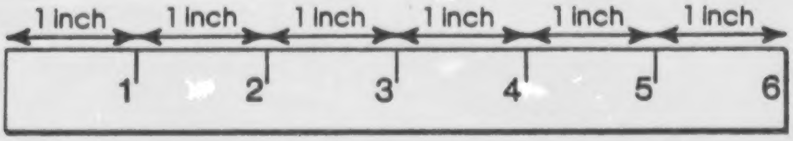
The linear measurement is 3 inches.
This line is 3 inches long.

how do you measure?

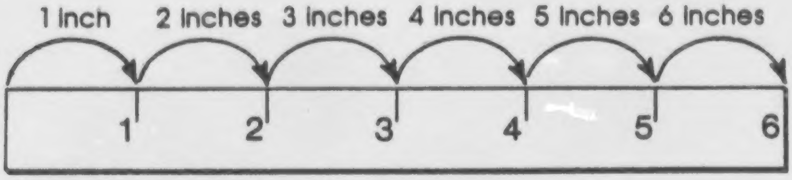
This is a ruler.



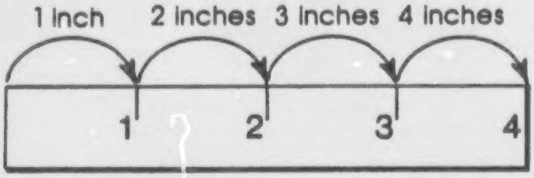
The ruler is a measurement tool.
This ruler measures inches.
There is 1 inch between markers.


1 inch
1 inch
1 inch
1 inch
1 inch
1 inch
1
2
3
4
5
6

Count the inches.
The numbers help you.


1 inch
2 inches
3 inches
4 inches
5 inches
6 inches
1
2
3
4
5
6

This ruler is 6 inches long.


1 inch
2 inches
3 inches
4 inches
1
2
3
4

This ruler is 4 inches long.

ADAPTING TEACHING STRATEGIES

If you wanted to learn to graft a fruit tree cutting, you could read a book on the subject, attend a lecture, watch a demonstration, talk with a person who grafted cuttings, watch a slide set, filmstrip, or film about it, listen to a radio program or tape, experiment on your own--or any combination of methods; another person may have a different preference or learning style. Each individual student will have his or her own learning styles for specific tasks, and may learn most comfortably and efficiently with different teaching strategies in different situations.

To best meet the special needs of your students, you may do prescriptive teaching. Prescriptive teaching, in part, means matching the teaching strategy to the student's learning style. The I.E.P. and team assessment provide some information about appropriate strategies for a particular student; and, of course, you may ask the student his or her preferences. Appropriate teaching strategies may vary for the student, depending on the kind of material he or she is learning. Therefore, it is a good idea to try several teaching strategies, particularly if the student is having difficulty mastering the material or objective. (The first section of this handbook identifies special needs learners and their characteristics and lists teaching strategies which are often effective with the particular group of special needs learners.)

The following several pages describe, in general terms, some basic teaching strategies which can be implemented in the vocational classroom. No doubt you are currently using several of these techniques very successfully. Using each of these techniques in the appropriate situation will give you teaching flexibility to best meet the differing needs of all students in your program.

Lecture

Lectures are used with groups of students to cover much material quickly. The lecture is usually a teacher-directed activity. Many students with learning problems, hearing impaired students, and students with limited attention span often have trouble assimilating material presented in lecture format.

Demonstration

Demonstrations are used effectively in many vocational classrooms. A step-by-step explanation of how to perform a particular skill while actually performing the skill clarifies the process for most students, and does not put those students who are language or reading impaired at a disadvantage. Visually impaired students will need more tactile opportunities during demonstrations than other students may need.

23

84

Field Trips and Resource Persons

Both visits to actual commercial shops and inviting tradespeople into the classroom provide opportunities to add relevance to the vocational program for all students.

Role-play and Simulations

Two or more students act out a situation which they may encounter in real life; for example, job interviews and on-the-job behavior. This is also an appropriate teaching strategy when dealing with feelings or perceived differences of the special needs learners. The third section of this handbook in coping skills cover role-playing and effective strategies in greater depth.

Much of this chapter, particularly those sections on adapting instructional content and materials, have emphasized the necessity of at times individualizing instructions to meet the varying needs of all learners in your classroom. There are several teaching or management strategies which can help you implement individualized instruction without chaos. Each of these strategies is easiest to implement when your overall curriculum is competency-based or organized by behavioral objectives, so that individualization can be done by skill mastery modules or units.

Peer Teaching

In peer teaching, a student who has already mastered an objective or skill serves as teacher or tutor to a student who has not yet mastered the skill or objective. When willing students (both as tutors and tutees) have been selected carefully, this can be a positive experience for both students. The tutor has the opportunities to reinforce and strengthen what he or she has already learned.

Learning Contracts

In the learning contract, the teacher and an individual student determine specific skills to be mastered, and the activities to be done to reach mastery. In the contract, the teacher and student can specify appropriate instructional materials and media to use, and evaluation activities to indicate that the objectives or goals have been met. The framework for the contract can be found with the individualized education program, with specific activities and materials determined and clearly stated in the student/teacher learning contract. The material on the following page is an example of a learning contract.

24

EXAMPLE
SAMPLE LEARNING CONTRACT

Contingency Contract Involving

Instructor(s) ____________ Learner Steve

Candy Jenkins, Spec. Ed.

Tom Powers, Auto

Date Jan. 12

Target Performance If Steve will 1) attend all his classes for 6 weeks with no more than 2 excused absences and 2 tardy reports, and 2) complete 4 exercises in occupational math in the resource room,

If the above stated target performance is successfully demonstrated by the learner, the incentives or rewards listed below will be provided by the appropriate instructional staff.

Incentives/Rewards Steve will be permitted to use the auto lab equipment and tools during his free period to 1) service his minibike and 2) build a motorcycle trailer.

Signatures

Learner Steve

Instructor(s) Tom Powers

Candy Jenkins

Date 1/12

Individualized Instructional Module or Learner Package

An individualized instructional module or learning package is simply a set of instructional materials which focus on a specific skill or concept. The objective or goal of the module should be clearly stated at the beginning of the package, and all activities necessary to reach the goal should be described in the package. The learning package is arranged and organized so that it can be picked up and used conveniently without searching for additional resources. All equipment or tools needed to complete the module should, preferably be packaged with the instructional materials. If this is not possible, all necessary equipment or tools should be listed or pictured at the beginning of the module so the student can gather them before beginning the activities. A learning package can be as simple as a diagram and checklist of steps for threading a sewing machine. This checklist can be kept with thread, needles, and bobbins next to the machine in the clothing construction workroom for independent use at any time. A learning package can be as complex as several filmloops and 40 pages of programmed text which can be attached to a drill press, indicating its operation, for use only during specified hours when a shop supervisor is present. On the following several pages you will find an example of a traditional instructional module and an example of how you can individualize this traditional instructional packet for a learner with reading and/or language problem.

EXAMPLE
TRADITIONAL TEXTBOOK INSTRUCTIONAL PACKAGE

"HOW TO USE DRY TRANSFER LETTERS"

This text is taken from a student textbook used in vocational high school classes (Comprehensive Graphic Arts; Howard W. Sams, & Co., 1976).

On the next few pages, it is rewritten as a learning package appropriate for learners with reading and language problems. Notice that all equipment is packaged with the instructions.

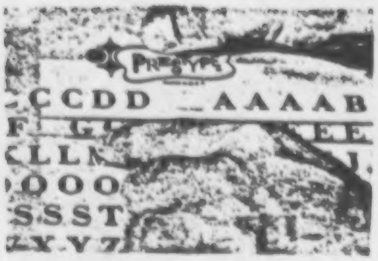
Dry Transfer Composition

Quality composition by this method can be achieved with little or no previous experience. Important considerations are neatness and attention to the following procedural steps.

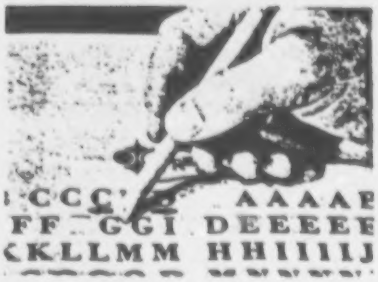
Draw light blue guidelines on the copy sheet. Light blue lines will not photograph, thereby causing no unwanted lines on the film negative.

Remove the protective backing sheet of an alphabet sheet. It is recommended, though, that the backing sheet be removed only from the area of the selected letters. The adhesive will stay cleaner when protected.

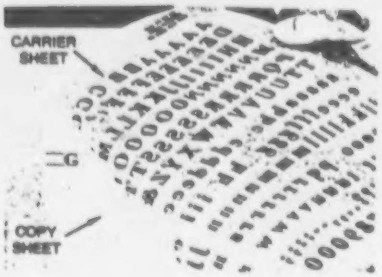
Position the selected letters on the guidelines of the copy sheet as shown.


PRESTYPE
CCDD AAAAB

Rub the area to be transferred with a blunt instrument. A dowel, a ball-point pen, or a pencil, will work as a rubbing instrument. Be careful to rub only the area that you wish transferred.


CCC AAAAB
FF GGI DEEEEE
KLLMM HHIIIIJ

Lift the carrier sheet from the copy sheet. If burnished correctly the entire letter will adhere to the copy sheet.


CARRIER SHEET
G
COPY SHEET

EXAMPLE
INDIVIDUALZIED INSTRUCTIONAL MODULE OR LEARNING PACKAGE

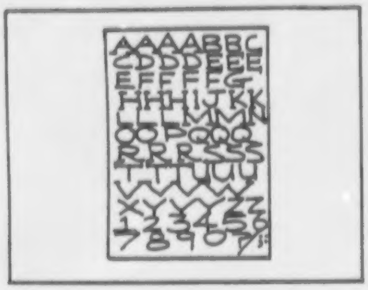
"HOW TO USE DRY TRANSFER LETTERS"

This learning package can be contained in a large manila envelope or flat box (such as an empty spirit master box) labeled "How to Use Dry-Transfer Letters." The components of the package would be one page of dry-transfer letters, a nonphoto blue pencil, a ruler, some copy paper, and the following instructions.

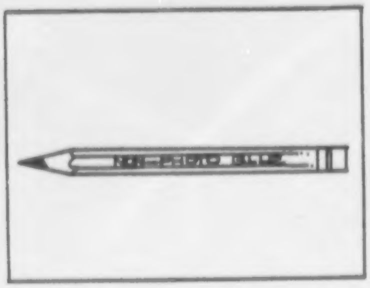
You can learn to use dry-transfer letters.
Follow the directions. Use the tools in this package.

You will need:

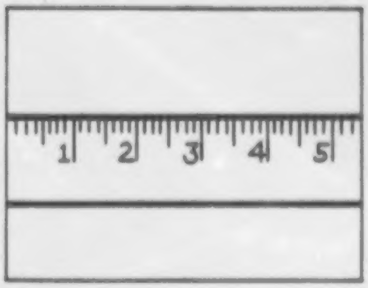
1 sheet of dry-transfer letters



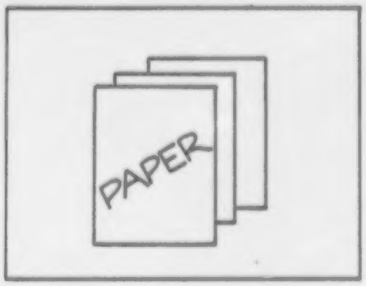
1 nonphoto blue pencil



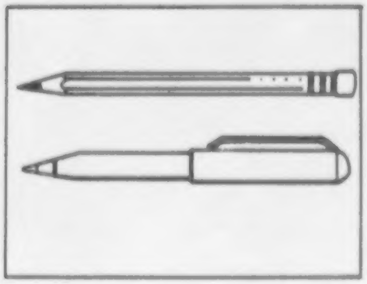
1 Ruler



Copy Paper



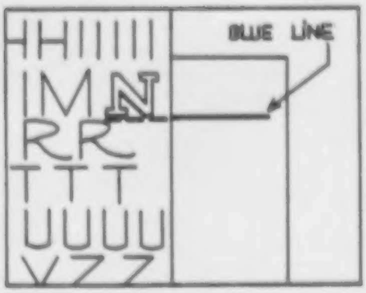
Pencil or Ball-point Pen



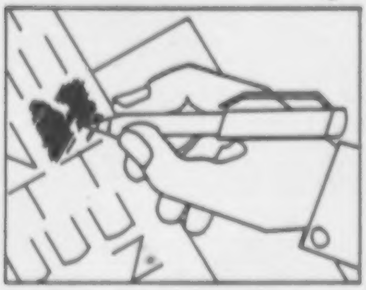
Look in the package.

Take the letters, pencil, ruler, and paper out of the package.

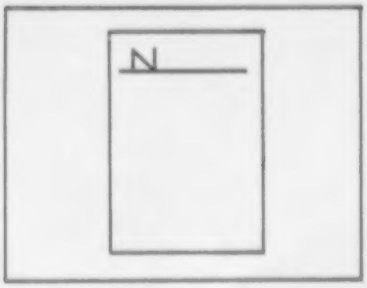
Find the first letter of your name on the letter sheet. Move the letter sheet so that letter sits on the blue line.



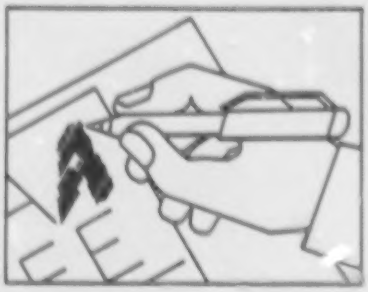
Take a pencil or a ball-point pen.
Rub all over the letter
Rub only around that letter.



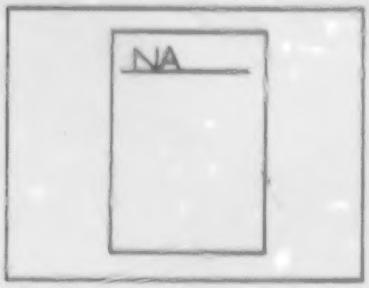
Carefully take the letter sheet away. You should have a letter on the blue line.



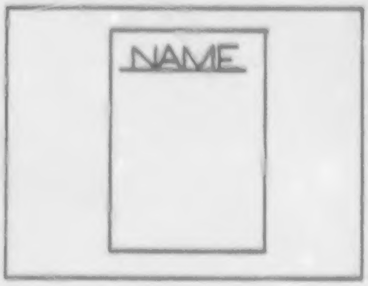
Do the next letter of your name the same way. Make sure the letter from the letter sheet is on the blue line. Rub the letter with a pen or pencil.



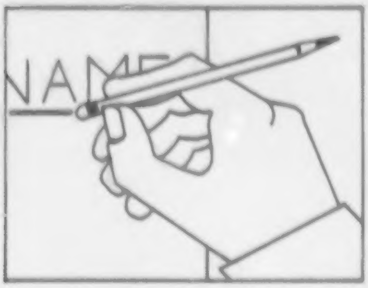
Then move the letter sheet.



Now do the rest of the letters in your name the same way. Make sure each letter is on the blue line.



When you are finished, erase the blue line.



Put the letter sheet on the backing sheet again.

Put the letter sheet, blue pencil, ruler, copy paper, and these directions back in the package.

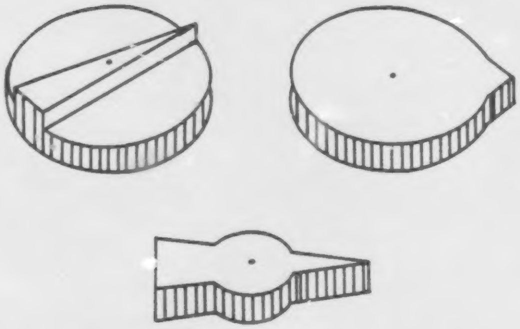
ADAPTING THE PHYSICAL ENVIRONMENT

The physical environment of the classroom should be flexible enough to allow different students to use different materials and learning methods at the same time. If possible, separate areas should be available for discussion, reading, labwork, and using self-instructional materials. While this flexible arrangement is not always possible in the vocational classroom, greater use may be made of the media center, library, or other areas of the school where audio-visual equipment is set up and used.

Some specific equipment and facilities modifications which relate to specific handicapping conditions may be needed. Whenever possible, however, standard equipment should be used to minimize the stigma of special eqiupment, and to enable the student to function in a broader environment than his or her classroom. While the modifications actually necessary will vary according to the individual student, handicapping condition and learning situation, the following will provide some general guidelines for adaptations to the physical environment.

For hearing impaired students, bells, buzzers, alarms, and other auditory signals need to be connected with visual signals such as flashing lights. Also, a light should be installed next to equipment switches which indicate when the machine is in operation.

For visually impaired students, an unchanging and orderly arrangement of furnishings and equipment is important. These students also need dials and switches that are easily reached; and control dials with tactile markings, (braille tape or dots of glue can be put on the dials), control knobs that allow the positions to be easily determined by touch can also be used, as in the following illustration.



Control knobs that allow position to be easily determined by touch.

Visual signals on machinery need to be connected to auditory bells, buzzers, or alarms. Visually impaired students may need guard plates on some equipment. There are many tools specially designed for visually impaired students and the individual situation should determine if and when any of these is appropriate. The Resources Section of this handbook provides a listing of organizations and firms which design and distribute specially designed tools for handicapped persons.

[illegible] 2-1
5 1/2 + 6

"Talking" calculator gives results in visual and auditory forms. (Courtesy of Telesensory Systems Incorporated)

Some partially sighted students may be helped through enlargement of the work and/or work surface.

Center
photo
7-2
3 15/16 × 6

Stand magnifiers help these students with their work by enlarging and illuminating the work surface. (Photo courtesy of The Endalite Corporation)

The classroom and school facilities may need some alterations to make them accessible to orthopedically handicapped students. Nonskid floors, wide aisles and doorways, and additional space around power tools may be necessary for students in wheelchairs and/or on crutches. Table, workbench, and storage cabinet heights usually need to be lowered and recessed for wheelchair students or modified in some way for easier access as in the following illustrations.

77
35

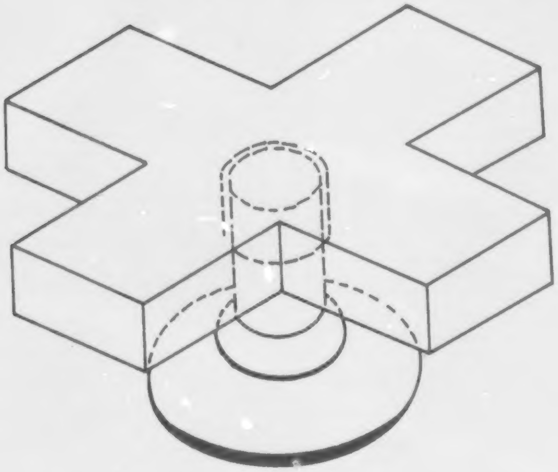
photo
2-3
4 3/4 x 6

Workbench allowing easy approach from all sides. (Photo courtesy of Brodhead-Garrett Company)

photo
2-4
4 1/4 x 6

Desk with built-in height adjustment. (Photo courtesy of Brodhead-Garrett Company)

Cabinet doors and water controls may need modification with simple handles instead of knobs on cabinets, and batwing faucets and gooseneck spigots on sinks.



Spoked handle in place of faucet knob allows easier usage with prosthesis.

Equipment specific to the vocational area may used modification as well. For example, switches on power equipment may need to be moved or lengthened for easier access.

Lever extension puts carriage within easier reach.

Alterations should be made when necessary, but only when necessary. The fewer adaptations or modifications of the classroom environment that the handicapped student needs, the more easily he or she will be able to function in the working world.

Experienced vocational teachers use both commercially adapted equipment (see Resource Section) and are creative in adapting the regular vocational classroom to the needs of their learners.

~~80~~ 38

Trainer's Manual For Section Two — Adapting the Instructional Environment For the Special Needs Learner

This handbook was designed for use as an inservice professional development resource for teachers working with special needs students mainstreamed in vocational environments. A presumption underlying its organization and content is that a competent teacher or administrator on staff in the school acting as an inservice teacher educator would supervise the organization, operation, and teaching of the inservice learning experiences.

Further, it was presumed that the trainer would work with staff development personnel in the regional offices of the Massachusetts Department of Education. Department personnel are knowledgeable about the handbook and can assist local schools in developing an inservice training process. They can also assist the local schools to generate support funds through the Massachusetts State Department of Education Commonwealth Institute for Inservice Education.

Trainer's Manual for Section Two - Adapting the Instructional Environment For Special Needs Learner

OBJECTIVES OF THIS SECTION

The trainer will lead participants in the following activities so that all may develop a flexible learning environment to meet the varying learning needs of students in their program.

INTRODUCTION

This chapter, "Adapting the Instructional Environment for the Special Needs Learner," can be used either as an independent additional resource by participants, or incorporated into workshop/discussion sessions. If this chapter is incorporated into the workshop, it is suggested that four separate sessions be planned, each one corresponding to one of the adaptation topics.

Specific activities suggested in this trainer's manual encourage participant involvement, and depend upon the participants having read and assimilated the corresponding material in the participants' workbook. If the participants have not read their workbooks beforehand, you will need to precede the activities for each section with a lecture presentation of the material in that section.

The times given for each workshop activity in the trainer's section indicate the minimum amount of time you will be able to spend on a specific activity and complete it meaningfully. The time allotment for your workshops, the size of the groups, and the professional needs and interests of the participants will determine the maximum amount of time you can devote to specific activities. The number of small groups will affect the amount of time for large group sharing of their activities/findings.

ADAPTING INSTRUCTIONAL MATERIALS

Advance planning: Ask participants to read this section of their workbooks prior to the workshop and bring some instructional materials from their classes which are not effective with special needs learners to the workshop.

Large Group
15 minutes

Present each of the following situations. Have participants discuss some general ways instructional materials could be adapted appropriately. Some possible solutions are listed after each situation.

Situation: A teacher teaches a course in welding and uses films to demonstrates welding techniques. One of her students is hearing impaired. What adaptations can be made to meet this student's needs? (Use of captioned films, transcript of film, interpreter, outline of important information from film).

Situation: A teacher generally uses print materials in teaching a course in child nutrition. One of his students is visually impaired. What adaptations can be made to meet this student's needs? (Transcribe print material to audiotape or Braille, including descriptions of pictures from the text, and depending on extent of the impairment, enlargement of simple diagrams or charts may be needed.)

Situation: A teacher generally uses a regular high school text in teaching a course on operating office machines. One of her students is learning disabled and does not read well. What adaptations can be made to meet this student's needs: (Simplify instructions, lower vocabulary level, use illustrations, diagrams, demonstrations, films, filmstrips, whenever possible).

Now let participants provide situations which are causing them problems and let the group suggest some general solutions.

Small group
25 minutes

Divide the participants into groups of 4 or 5. Have each group select a lesson from one of the instructional materials they brought and develop a rough modification, breaking the lesson into small units, simplifying vocabulary, suggesting supporting media, etc.

Large group
15 minutes

Reassemble and have one person from each group summarize the unit and give the simplified modification, reading a few of the specific rewritten segments to compare with the original instruction.

Some suggested questions to encourage discussion are:

1. What problems, agreements, and/or disagreements did you have in doing this exercise?

2. What advantages to the special needs learner do you see in this rewritten material?

Follow-up
Activity

Have participants modify a unit according to the suggestions offered in this workbook, test the unit with a special needs learner who previously had trouble with the material, and share their results at a later session.

ADAPTING TEACHING STRATEGIES

Advance planning: Ask the participants to read this section of their workbooks prior to the workshop and to bring a lesson plan for material usually conducted in a large group/lecture mode.

Small group
20 minutes
(Tell the participants when half the time is up so they can switch roles)

Divide participants into pairs. One will act as a student, one as a teacher, and together they will develop a learning contract based on the lesson plan the teacher-participant brought to the workshop. At the half-way point of the small group session, have participants switch roles and develop a learning contract based on the lesson the other participant brought to the workshop.

Large group
25 minutes

Reassemble and have the pairs summarize and share the learning contracts developed. Discuss the teaching strategies which have been used in these workshops so far. Which ones have been effective and why? Would other approaches be more or less effective? Which ones, and why? What advantages to special needs learners do you see in individualizing instruction to all of your students?

ADAPTING THE PHYSICAL ENVIRONMENT

Since the adaptations to the physical environments will be specific to both the handicapping condition and the nature of the classroom setting, this workshop section will focus on developing an awareness of what it is like to be handicapped and try to function in the real world, rather than describing modifications. The participants sections of the handbook provides information on possible modifications.

Advance planning: For the workshop itself, you will need crutches, wheelchairs, 5 and 10 pound weights, blindfolds, white canes (or 5 foot long wooden dowels), and earplugs. Have enough of these items so that each participant can use either: wheelchair, pair of crutches, 5 and 10 pound weights, blindfold and cane, or earplugs.

Large group
10 minutes

Distribute the items to participants and explain that they will be doing some exercises on what it's like to be handicapped. Instruct earplug users to insert earplugs immediately, then talk softly and do not face these participants. Instruct other people not to explain your instructions to the earplug users, or to talk with them during the exercise. If the earplug users ask questions, other participants should pretend not to understand what is being said. If necessary, adjust crutches for the participants using them. Instruct the weight users to attach a 5 pound weight to one wrist and a 10 pound weight to the same side ankle. Give the participants the following tasks and and 20 - 30 minute time limit:

Individual work
20 - 30 minutes

If in the home school, each participant will go to his or her classroom and try to operate machines, open doors, get supplies, etc.

If not in the home school, each participant will go through the cafeteria line, to the main office, and to the school bus loading area and back.

All participants will be instructed to go to the bathroom and to make a telephone call at a pay phone.

Have participants return to the large group and discuss their experiences. Some suggested questions for discussion are:

- What problems did you have during the exercises?
- Did you get angry or frustrated at all? Why and when?
- Do you think you'll do anything differently in your own classroom?

Section Three-Coping Skills

by William Barnes

OBJECTIVES OF THIS SECTION

Vocational educators will be able to access their personal attitudes and behaviors toward students. They will develop skills and techniques which will enable them to interact with special needs learners in a patient and caring manner. They will learn language and interpersonal skills which will enable them to create a warm and supportive atmosphere in their classes, aid special needs learners in developing a positive attitude toward themselves and their peers, and help these learners develop a sense of responsibility.

✓ assess

INTRODUCTION

Teaching is a complex profession. Today's vocational educators not only have the task of passing along a technical body of knowledge, but also are charged with the responsibility of shaping the values and attitudes of succeeding generations. Each group of students represents a complex interplay of relationships, values, attitudes and aspirations. In order for the vocational educator to adequately address both the student's need for technical job-related skills, and for guidance and encouragement in personal growth and development, the educator must have the necessary competence in his own interpersonal skills to achieve these objectives. This coping skills section will focus on aiding vocational educators in assessing their current level of interpersonal skills, and in developing new skills and techniques to enable them to interact with their students in a consistently positive and encouraging manner.

SELF-AWARENESS

The purpose of this unit is to help develop an awareness of ourselves as educators and as individuals. Research has shown convincingly that our attitudes toward and expectations of our students have a significant effect on their performance. If we have a positive attitude and expect our students to do well, their chances of academic success are greatly increased. Conversely, if we have a negative attitude and low expectations, these preconceived notions have a way of becoming self-fulfilling prophesies. The following self-evaluation exercise is designed to bring out your beliefs and personal attitudes about your special education students. If you have not worked with a sufficient number of special needs learners to be able to come up with twelve names, you may use regular education students you have worked with who fit the description. The exercise should take about half an hour to complete.

*Self Evaluation Exercise: Conceptions of Students

Using the following descriptions, write the names of special education students you have taught, counseled, or worked with in some way. Select twelve different persons (i.e., if the same person comes to mind in a later description, select another) so that at conclusion you have twelve different names on the paper. (No one else will see the names--they are only for your use).

1. The first male special education student whose name comes to mind.
2. A female special education student you found hard to understand.
3. A male special education student you would like to help.
4. The first female special education student who comes to mind.
5. A male special education student you would like to know better.
6. A female special education student you liked.
7. A male special education student whom you liked.
8. A female special education student you would like to help.
9. A male special education student whom you don't like.
10. A female special education student whom you don't like.
11. A male special education student you found hard to understand.
12. A female special education student you would like to know better.

Matching and Naming

Next, select student #1, #4, and #8. After asking yourself the question, "Which two of these three are alike in some important way and different from the third?" select those two and put them together. Next, ask yourself the questions, "How are they alike?" describing this similarity in your own words by a word or phrase. Using page 89 (attached) circle the two persons whom you thought were alike and write your word or phrase describing how you see them as being alike. Continue this procedure for the following nine triads.

---

*Adapted from work by Clyde Parker, University of Minnesota

Worksheet for Self Evaluation Exercise

Students' Names
(from description of page 88)

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

Triad	Three Names	Your Description
a. 1-4-8		a.
b. 2-5-9		b.
c. 3-7-10		c.
d. 4-6-11		d.
e. 1-5-12		e.
f. 2-6-9		f.
g. 3-4-10		g.
h. 5-7-11		h.
i. 7-8-9		i.
j. 10-11-12		j.

What Does it All Mean?

You now have generated a list of ten words or phrases which are indicative of your basic attitudes toward your students. Look over the list and see if you are at all surprised by the descriptions you have used. If you find the descriptions are predominately negative in tone, it would suggest you see yourself in an adversary relationship with your students, and often expect to have difficulty dealing with them. You may find your focus is on qualities such as "quiet," "well-behaved," "do what they're told," etc., which often indicates an over-concern with compliance and orderliness rather than personal and academic growth. The qualities and descriptions which you have written tend to become those behaviors which you most encourage in your students. If the majority of your concepts have a positive, growth-oriented tone you can be fairly sure this is the overall effect you are having on your special needs learners. If, on the other hand, you are displeased with some of the values you have projected and the effect they may be having on your students, you may wish to reevaluate your own behavior and manner of interacting with your students. The subsequent units in this section are designed to heighten your awareness of how your own personal style affects your students. It contains specific ideas and exercises to improve your communication skills and aid you in becoming a more effective, sensitive vocational educator for your special needs learners.

INTEGRATING THE SPECIAL NEEDS LEARNER INTO THE VOCATIONAL ENVIRONMENT

One Hundred years ago, public education in this country affected only a small percentage of the young people. Even as recently as 50 years ago, less than one half of the school-age population of the United States was receiving any kind of public education. Today the demands placed on our educators are very different. The literacy rate is greater than 90 percent and virtually all of the young people in this country under the age of 18 are required by their states to receive public education. As a consequence, vocational educators are having to deal with a much wider variety of students than was formerly the case. In particular, special needs students have been deemed by the Commonwealth to be best served by the educational system of the state of Massachusetts by being as fully integrated to the mainstream of that system as is possible. Vocational educators therefore, are having to devise new strategies and teaching methods to meet the needs of the expanded population with which they now find themselves working. In this section you will be focusing on meeting the new special needs students, establishing a relationship with them yourself, and then effecting a smooth entry for those students into your regular classroom.

Establishing Rapport

The first few minutes of a meeting with a new student are important if a good working relationship is to be established. It is during these initial minutes that the student will form her or his attitude toward the instructor and the class. If the instructor can use this opportunity to create in the student a positive, enthusiastic attitude, subsequent problems with the student in the class can be either avoided or minimized. With the special needs learner, this first contact is especially important. Often in a new setting with few or no previous personal contacts, special needs learners may feel anxious about this new environment and skeptical of their own ability to succeed in it. The special needs learner needs to develop a support system of people who can ease the transition into this new setting. Offer to be one of these people.

Plan on spending at least five minutes in getting to know your new student and finding out about his or her concerns about your class, as well as any special needs that might be anticipated. If you don't have time to do this on first being introduced to the student, schedule a time during that day when you can sit down for a few minutes undisturbed. Use this opportunity to find out how the student views his or her own current disability and what role he or she would like you to play in helping him/her adjust to it in the vocational setting. Mention the fact that an individualized educational plan will be developed for the student in your class if it is appropriate to his or her special need or learning style. Emphasize the fact that he or she will not be competing against the other students but rather focusing on developing his/her own abilities to the greatest extent possible. Let the student know that he/she may work at his/her own speed and that you will be available as time permits for the extra help and support he/she may need. Keep in mind that you are trying to reduce the anxiety and fear of competing unsuccessfully that the student probably feels.

Introducing the Special Needs Learner to the Class

The manner in which you introduce the new special needs learner to your class will have a significant impact on how other students view that person. Although you cannot remove all barriers to the special needs learner's integration into the group, you do have considerable influence in creating a first impression.

Find out if there is any specific information about the student he/she would like the other students to know. This may include information about how to handle seizures, specific facts about the extent of a physical impairment and when help is or is not needed, as well as personal information about interests and background which can provide an opening for the other students to get to know the special needs learner. The degree of ease and friendliness with which the instructor interacts with the new special needs learner will set the pattern for students in the class. Openly identifying and accepting the special needs of a new student can overcome a lot of awkwardness and answer a lot of unasked questions for the regular education students. If these obvious questions and concerns are not addressed at the outset, students often avoid the special needs learner out of a sense of their own awkwardness, and the special needs learner's sense of isolation is increased. Chances are that those questions and concerns that you have are shared by the members of your class. Find out the answers, and share the information.

To a significant extent, the special needs learner's own opinion of whether they have been successful in integrating themselves into their new vocational setting will be determined by how comfortable and included they feel in their relationship with their peers, although the vocational educator himself can be instrumental in getting the special needs learner off to a good start. After that, the educator is limited in so far as what he can do. In the subsequent section on sociometry in the classroom, there are specific suggestions for vocational educators to help their special needs learners form good relationships with their peers. It is hoped that by understanding the dynamics which exist in the classroom,the vocational educator will find it possible to use them to his or her advantage and achieve a successful school experience for their new special needs learners, both educationally and socially.

SOCIOMETRY IN THE VOCATIONAL SCHOOL

Education in the United States is currently undergoing a shift in emphasis from competition among students, to cooperation. The success of the graduates of our school systems in their subsequent career choices has been found to relate strongly to their ability to interact effectively with their fellow employees. Much of the training these graduates need can only be provided on the job. Hence, their ability to work as a member of a team, to ask for guidance or instruction when needed, and to provide help and positive feedback for their co-workers when appropriate, are all crucial skills for them to bring into the job market. We cannot expect students to acquire these interpersonal skills without creating a supportive, cooperative atmosphere in the shops and classrooms from which they come. Sociometry is a method which acknowledges the existence of these important dynamics of social interaction and offers the teacher a means of using them for the mutual benefit of students and teachers alike. The principle on

*Adapted from H.H. Jennings, Sociometry in Group Relations, American Council on Education, Washington, DC 1959.

which sociometry rests is freedom of association. Situations should be created in which the students have an opportunity to choose other students to work with, or just be with. The choices may involve whom to sit with in homeroom, work on a car with in an auto shop, or research a project with for social studies. For the special needs learner, whose sense of isolation is often much greater than that of the other students, proper use of the tools of sociometrics can offer a concrete, meaningful way for the teacher to facilitate that student's entry into the school's mainstream. By understanding and using the pattern of relationships which already exists between students, the teacher can develop a spirit of cooperation and mutual support in the class which will create a positive, dynamic learning situation for all. The sociometric process breaks down into three steps: testing, analysis, and implementation.

The principle on which sociometry rests is freedom of association.

Administering the Sociometric Test

To administer a sociometric test, a situation should be chosen which has meaning for the students, e.g., work bench or shop safety partners, seating arrangements for a classroom, work groups for a specific task, etc. If your shop habitually is run so that students always work independently, create an occasion for which small group structures will be necessary. Have students write down their first, second, and third choice of whom they would like to work with. (3 x 5 cards distributed for this purpose are convenient to work with.) If you are aware of tensions that exist you may also have them put down any person or persons with whom they would not like to be grouped. They needn't put anyone down in this category and no number of choices should be specified. The reason for the test should be of immediate practical significance for them, and it must be possible to carry out the agreement on the basis of the choices which they make. Although it will be impossible for everyone to get all of their choices, assure students that you will do your best to see that everyone gets at least one of their choices. Specify the length of time the arrangement will be in effect, e.g., "These groups will work together for the next eight weeks, at which time you'll have an opportunity to choose again." Point out that since everyone will not get all their choices, confidentiality is important. People may choose a student who has not chosen them, and there is no reason to create unnecessary feelings of rejection. Assure the students that you will keep all results confidential, and keep your promise. You should also emphasize that these choices are for purposes of this *specific* situation only, to help everyone find the most acceptable and enjoyable arrangement for them. The entire process will only take about five minutes.

Making the Sociogram

Three forms are included here for your use in making and interpreting the sociogram for your shop or class. Form #1 is the tabulation form. In Figure 1 this form has been filled out for a representative 9th grade class. The main use for this form is to give a total picture of all students' responses and all positions in the group. The form is also easy to lift information from when used for further analysis. Form #2 has been designed as a suggested format for handling and deciphering the information generated by the test. As indicated on the form, questions and categories should be adapted to reflect the patterns and composition of your particular group. Form #3 is a visual representation of the information on Form #1.

FORM 1 SOCIOMETRIC TABULATION FORM

Chosen → Chooser ↓																											
Chosen as:																											
1st choice																											
2nd choice																											
3rd choice																											
TOTAL																											

FIGURE 1

SOCIOMETRIC TABULATION FORM

Chosen → Chooser ↓	Dorothy Argo	Michael Arndt	Martin Rach	Susan Carr	Robert D'Uva	Neil Gorchow	Wm. Hemsley	Washington Jones	Beno Kon	Patricia Lee	Shirley Mitchell	David Novick	Alice Ramsey	Betty Ross	Tito Sasaki	Earl Sherman	Alan Thomas	Fred Weenig			
Dorothy Argo	•		3	2							1										
Michael Arndt		•				1			2							3					
Martin Bach	2		•					3								1					
Susan Carr	1			•		2							3								
Robert D'uva	1				•									3				2			
Neil Gorchow	3	2				•			1												
Wm. Hemsley		1			3		•							2							
Washington Jones								•			1	3					2				
Beno Kon		3			2				•	1											
Patricia Lee			A	B	S	E	N	T		•											
Shirley Mitchell	2							1			•				3						
David Novick	2	3										•			1						
Alice Ramsey		1		2						3			•								
Betty Ross		1			2		3							•							
Tito Sasaki					3						1	2			•						
Earl Sherman		1		3							2					•					
Alan Thomas	1	2															•	3			
Fred Weenig		1			2						3							•			
Chosen as:																					
1st choice	3	5	0	0	0	1	0	1	1	1	3	0	0	0	1	1	0	0			
2nd choice	3	2	0	2	2	2	0	0	1	0	1	1	0	1	0	0	1	1			
3rd choice	1	2	1	1	2	0	1	1	0	1	1	1	1	1	1	1	0	1			
TOTAL	7	9	1	3	4	3	1	2	2	2	5	2	1	2	2	2	1	2			

Tally of Sociometric Positions

No. of Boys________; No. of Girls__________

Class/Grade_____
School__________
City____________
Date Given______

Test Question: ____

How many choices were asked for?__________________. Total number of choices made by all students?__________

Maximum number of choices possible (multiply size of group by number of choices allowed) ______________

Enter in the spaces below the number of students holding each position listed.

Frequency of choice	NUMBER OF STUDENTS Chosen	Chosen Mutually	Rejected*	Reje
Not at all..............				
Once.....................				
Twice....................				
Three				
Four				
Five times...............				
More than 5 times........				
Total no. of Students[1]...				

BREAKDOWNS OF TALLY OF POSITIONS ALONG GROUP FACTOR LINES[2]

Frequency of choice	No. of choices Received		No. of choices Received			No. of choices Received		No. c Re
	Boys	Girls	Black	White	Other	Special Ed.	Regular Ed.	Any othe relevant
None..................								
One...................								
Two...................								
Three.................								
Four..................								
Five or more..........								
Total by Category.....								
Total No. of Students.								

FURTHER QUESTIONS (Suggested-you may use any questions meaningful

How many special education students choices were not reciprocated?__________
How many minority students were unchosen by white students (or vice versa)?__________
Number of mutual choices between special ed. and regular ed. students.__________
Number of mutual choices between boys and girls.__________

SPECIAL FEATURES

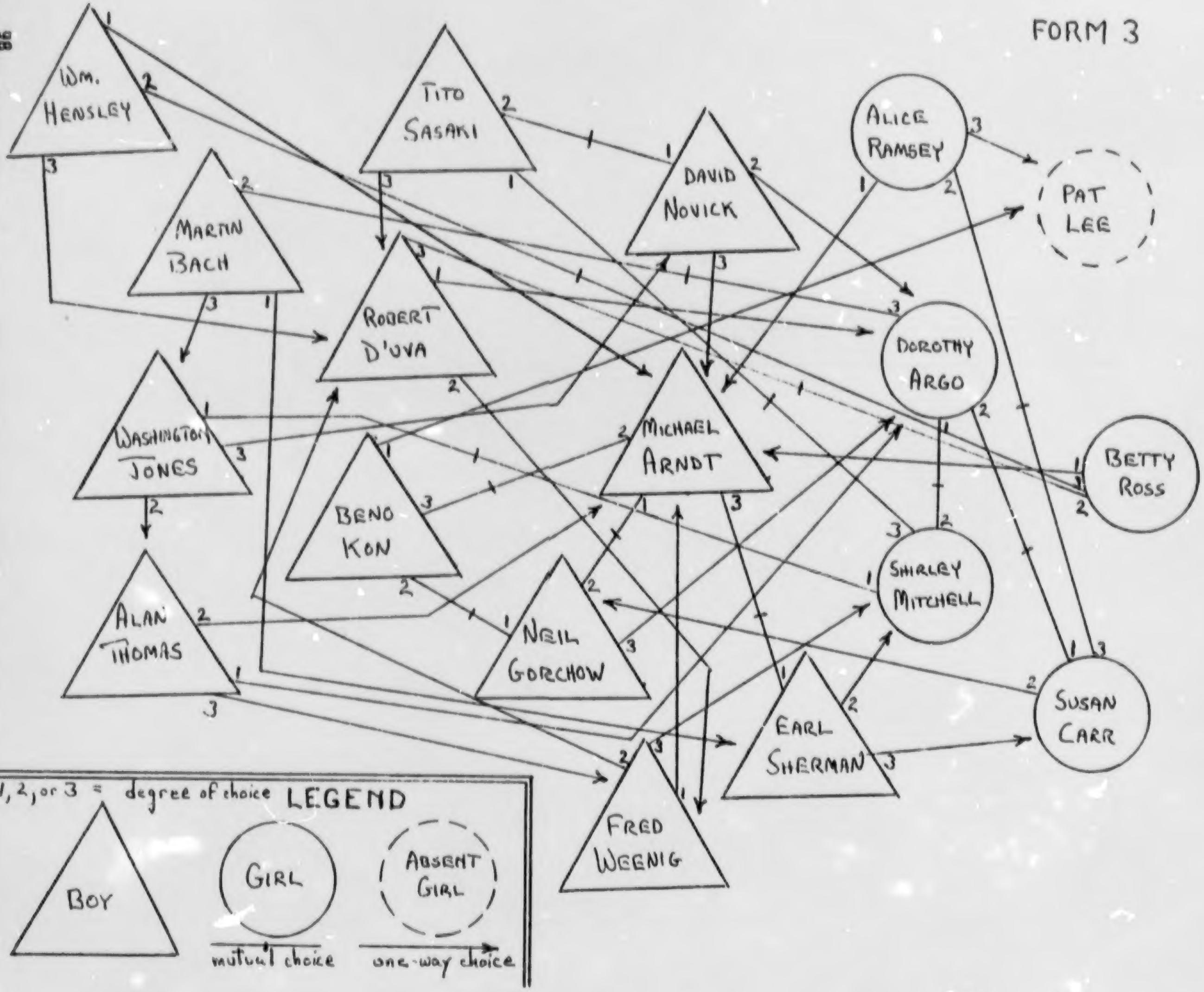
Note here any pattern which is of special interest to you, e.g., "Three of the unchosen students chose the same much-chosen student," "None of the special ed. students chose each other," etc.

---

*Enter only if a rejection question was used.

[1] Totals of each column should equal the number of students in the group

[2] Positions may be broken down into whatever categories for analysis will disclose whether particular group factors are oper its structure.


FORM 3
WM. HENSLEY
TITO SASAKI
DAVID NOVICK
ALICE RAMSEY
PAT LEE
MARTIN BACH
ROBERT D'UVA
DOROTHY ARGO
WASHINGTON JONES
MICHAEL ARNDT
BENO KON
BETTY ROSS
ALAN THOMAS
NEIL GORCHOW
SHIRLEY MITCHELL
EARL SHERMAN
SUSAN CARR
FRED WEENIG
1, 2, or 3 = degree of choice
LEGEND
BOY
GIRL
ABSENT GIRL
mutual choice
one-way choice

Interpreting and Using the Sociogram

A good deal of information will be readily available after you have filled out the three forms. Those students who are the most chosen and the least chosen can be easily seen. When combining students for the purposes of the groups try to give those least chosen students their first choice. If, as is often the case, they have chosen a much chosen student, it may be necessary to ask that student to forego her/his choices to make your assignments to groups come out right. If the situation is explained to them in such a way that they feel much in demand and well-liked they will often cooperate in the process. Don't assign anyone to a group of unchosen people without first checking it out with them beforehand and gaining their consent.

If you use sociometry regularly in your classes you will find you develop a much better sense of the interrelationships between your students. Those isolated individuals can be identified and integrated into a group acceptable to them before they become too alienated from the whole educational process. A second and important part of helping a special needs learner be successful in the academic or vocational setting lies in offering consistent encouragement. The following units offer some ideas for accomplishing this goal.

COMMUNICATION SKILLS

One of the major complaints expressed by adolescents about their parents and teachers is that they don't listen. The purpose of this unit is to focus attention on those skills that go into making a "good listener," and to provide an opportunity for practicing these skills. Too often the educational process becomes a one-way street, with the teacher doing all the talking and providing all the information. Students are expected to assume a passive role, and may come to question whether or not their contribution is of any value at all. A critical aspect of understanding and using good listening skills as an educator is the power of this skill to develop self-confidence in the student who is heard, and to reinforce that student's role as an active participant in the learning process.

For the special needs learner, being heard clearly and accurately is especially important. In order for the teacher to respond appropriately and effectively to these students, he or she must have access to information and feedback which only the students themselves can supply. To elicit this information repeatedly and in a timely manner from the special needs learner, a combination of elements must be present.

Merely pausing at a work station to ask "Is everything o.k.?" May not [illegible] enough of an opening for every student. Make sure they h[illegible] chance to respond fully.

[illegible] to 3-2
4 5/8 x 4 1/2

First and most importantly, the teacher must create an opening for the student. Merely pausing at a desk and asking "Is everything okay?" or "Do you need any help?" may be sufficient for students who are clear about their needs and assertive enough to express them. Unfortunately, this is rarely the case for special needs students. What is more often necessary to open up communications is a clear indication that the teacher has the time to listen and an interest in hearing what is said. This means sitting down and focusing your attention on that student alone. Two or three minutes spent in clear, effective communication can make a student feel he or she is a special and important part of the class, and can ensure that student's participation and sense of connectedness to what is going on for the rest of the session. (See Microskill II: Open Questions for some suggestions on how to open up a conversation.)

Secondly, the listener must respond in a nonjudgmental fashion. This means simply listening, not evaluating the content of what is said and expressing agreement or disagreement. If issues are raised or things are said to which you feel compelled to respond, save it for another time, or at least until the end of the conversation.

Evaluating and judging a student's statements during the course of a discussion has the effect of shutting down further disclosure and inhibiting the student's responses. It is important to keep the focus on the student and make the time hers alone. The specific types of responses which are appropriate and work to facilitate clear communication will be dealt with in detail in the subsequent exercises.

The Microcounseling Model

Many of the ideas included in the Communication Skills Section have been adapted from work done at the University of Massachusetts, Amherst, by Professor Allen E. Ivey. The basic concept behind the microcounseling approach is that the interpersonal skills used by a good, effective counselor can be broken down into discrete components and taught in separate steps. Although the vocational educator may initially feel a certain amount of awkwardness and disconnectedness in learning the microskills in this model, it has been shown to come together quite effectively after the first few steps have been made. The microcounseling model alone, of course, cannot equip an individual to handle intensive therapy or act as the primary counselor for people with severe emotional problems. Additional training, practice, and a solid theoretical background is necessary before this should be attempted. What the model can and does provide is an excellent tool for focusing on and developing those interpersonal skills essential for clear, effective, sensitive, person-to-person communication. As such it has enjoyed widespread application outside the counseling field. Faculties, social service workers, public-health workers, even students in elementary schools have been found to profit greatly from exposure to, and training with, the microcounseling approach. In presenting each of the skills the following format will be used:

- an explanation of the microskill will be given
- a role-play demonstration will be presented
- participants will engage in use of the microskill themselves in a role-play situation
- a group discussion will occur in which participants will share with each other what they have learned and any difficulties they may have had.

By using this format, all participants will not only get an explanation and demonstration of the skill, but will have an opportunity to try it themselves and then clarify their understanding in the ensuing discussion. It is in the extensive role-playing involved in this approach that the participants gain the skill and confidence necessary to effectively use these microskills in their work situations.

Microskill I: Nonverbal Listening Skills. In order to function effectively as a good listener there must exist more than just a desire to hear what is said. The listener must be perceived as involved and attentive by the speaker. This means:

- maintaining good eye contact
- keeping attention focused on the speaker
- nodding and smiling when appropriate
- maintaining a positive posture
- avoiding distracting mannerisms

To develop a feeling for how important this is, you will experiment in the following exercises:

Exercise IA--Inappropriate Nonverbal Listening

First choose a partner to work with. The task is for one person to talk about a subject of his or her choosing for two or three minutes. The listerner will frequently break eye contact, shift about and wiggle restlessly. The poor listeners will also check their watches, yawn, change the subject, address remarks to other people in the room, and generally pay poor attention to the speaker. Then reverse roles and repeat the process. Now rejoin the group.

Exercise IB--Appropriate Nonverbal Listening

Working with your partner again, repeat the process from Exercise IA. This time focus on using your best listening skills. Keep in mind the elements of a good listener listed above. When you have both had a chance to be both interviewer and interviewee, rejoin the group. Be prepared to discuss how this exercise felt for you as compared to the previous one. Think about what your normal listening behavior is like with your students now, and what you can do to improve it.

Microskill II: Open and Closed Questions. When discussing a problem or situation with a special needs learner (or anyone else) the kind of answers one gets and the quality of communication that ensues depends to a significant extent on the questions one asks. In this section you will learn the two basic types of questions and the purposes for which they are used. You will also do some exercises designed to help you become more effective questioner, i.e., one who can not only ask questions aimed at getting specific information, but also draw people out with your questions, allowing them freedom to express themselves more fully and clearly than might otherwise be possible. In a difficult shop or classroom situation, finding out what the student's real problem is makes finding a solution much simpler for both of you.

As we have seen from the previous sections on the various types of special needs learners, there are a wide variety of problems our students may find facing them when in a vocational education setting. If the shop teachers are able to develop effective questioning skills, it will enable them to be much more effective in providing the type of learning environment which best suits their special needs learners. Often the information that the instructor will need in order to provide this environment can only be supplied by the special needs learners themselves. Because of previous negative experiences in the school environment, many special needs learners are reluctant to discuss what they feel are their handicaps or shortcomings and feel that this is a source of embarrassment to them. It is only a sensitive and skillful interviewer who will be able to set the student at ease and find out what real problems are facing that student in the vocational education setting.

A closed question is one which presupposes a specific ansnwer, and can usually be answered in just a few words. For example:

1. "Did you finish your homework?"
   Probable answer--yes or no.
2. "You like sheet metal work, don't you?"
   Probable answer--yes (you are expecting agreement and will probably get it, whether the student likes it or not).
3. "Have you ever rebuilt a carburator before?"
   Probable answer--yes or no.
4. "You broke that on purpose, didn't you?"
   Probable answer--"Yeah, what are you going to do about it?" or "Who me, I didn't touch it."
5. "Do you need any help?"
   Probable answer--yes or no.

As can be seen from the above examples, these questions are "closed" in the sense that they limit the range of responses you will get. This may be exactly what you want to do, as in questions 1, 3, and 5. However in questions 2 and 4, a closed question does not really serve the purposes. Something else is needed.

An open question is one which does not presuppose a specific answer. Rather it opens up the range of possible replies and gives the person asked the question an opportunity to furnish information in detail that he or she feels is relevant. Open questions usually cannot be answered in just a few words. They indicate a willingness to listen on the part of the questioner, and should be asked only if you do have the time and inclination to listen properly to the response. (See Exercise I on Listening Skills.) For example:

1. "How do you feel about being the only handicapped student in the sheet metal shop?" This could be an alternate version of Question 2 in the closed question section but will probably elicit a more honest and detailed response.

2. "Could you explain to me how this happened?" This is an "open" version of Question 4 in the closed question section. No threat or accusation is implied and the student has an opportunity to present his or her explanation without having been judged already. Communication is still open.

3. "How did you feel when he said that?" Open questions dealing with the feelings and emotions can be a very effective way of helping to settle interpersonal disputes between students. Often students are unaware of the impact of their teasing or criticism on others. Open questions can sensitize them to the effect of their actions and words on others and can result in increased self-awareness. They have the added advantage of taking the teacher out of the role of judge and jury and instead provide students with an opportunity to teach each other.

4. "What have you learned by what you did here?" This question opens up for the students the potential of learning from difficulties. By placing the emphasis on learning instead of right or wrong, the student will be less intimidated by new and unfamiliar tasks. For special needs learners, fear of failure is often an overwhelming threat. Helping the student overcome this fear is one of the major tasks any instructor faces.

5. "What do you think you're doing?" Although this appears to be an open question in its form, the effect is likely to be more of a challenge and elicit a defensive response. Not only the form of the question, but also the attitude, tone of voice, and feeling behind it go into making it "open" or "closed." The person questioned must feel they really have an opening to talk before they will

do so. This attitude of openness and sharing will probably take a while to develop for both teacher and student, and the vocational educator may have to suffer a few rebuffs before an overture of friendship is believed or accepted.

EXERCISE II--OPEN AND CLOSED QUESTIONS

In order to develop your questioning skills you may participate in the following exercise: working with groups of three people, conduct an interview using only open and close questions and good nonverbal listening skills. Divide your group so that one person is the interviewer, one person the interviewee, and one an observer. Have the interviewee choose a subject he/she will feel comfortable talking about. The observer should note how many questions of each type were asked and what the responses were like. Allow enough time so that each member of your group will have an opportunity to function in all three roles, as well as receive feedback on her or his performance as interviewer. Then rejoin the larger group to discuss what you have learned.

Microskill III: Paraphrasing and Summarizing. If someone gives you their phone number you will usually repeat it to make sure you get it right. Yet we often listen to several minutes of complicated personal information from a person without ever checking to see if we have understood them correctly. Paraphrasing is a way of making sure that the message we received is the one that was intended. By repeating in our own words, at appropriate intervals in the conversation, what we have heard someone say, we can accomplish several important ends simultaneously. First, we make sure we heard what was actually intended, not just our interpretation of it. We offer the person listened to an opportunity to correct our impression or to expand on her or his remarks. By listening actively with the intention of paraphrasing when appropriate, you will also find your power of concentration is increased. The person talking will feel really listened to by you. Paraphrasing is a nonjudgmental technique. It allows a person to express his or her throughts or feelings fully and clearly, without having the subject changed or being challenged about what is said. Paraphrasing opens the way to clear communication and aids in establishing a truly helpful dialogue.

For the vocational educator having access to the skills of paraphrasing and summarizing can be especially advantageous in a difficult confrontation with the student. By paraphrasing a student's words, the instructor is able to focus the attention on the student and avoid being drawn into a confrontation with that student. If teachers hold back their own initial reaction or response, they allow the student the full opportunity to express his/her feelings or ideas on a subject. By paraphrasing the student's words, the teacher can often avoid misunderstandings and wind up being of assistance to the student instead of having to act as disciplinarian. With the emotionally disturbed student, vocational educators may often find themselves the object of loud or angry outbursts. By falling back on the microskills of paraphrasing and summarizing, as well as those earlier skills of listening and questioning, vocational educators will increasingly find themselves able to control a potentially disruptive situation in a manner that is encouraging to the student with the problem. Acting in this manner also prevents the disruption from spreading to the rest of the shop.

Summarizing the progress of a conversation with a student from time to time is also a very helpful technique. You not only check out your own understanding of what's been said or decided, but you help to focus the conversation so the student can think more clearly and make more rational and thoughtful decisions. Again, you give the students room to educate you on what it's like to be them. Only the students themselves really know what's bothering them. Paraphrasing and summarizing can take you out of the line of fire and helps students come to terms with the real source of their anger, hostility, or frustration. Too often the teacher bears the brunt of students' misbehavior only because the students don't know how to stop being upset and include all adults in their anger. Take these situations seriously if they arise in your class, but don't take them personally.

EXERCISE III--PARAPHRASING AND SUMMARIZING

In order to develop your paraphrasing and summarizing skill you may participate in the following exercise: working in groups of three people, conduct an interview using primarily the microskills of paraphrasing and summarizing. You may also use your questioning skills, and of course your nonverbal listening skills. Divide your group so that one person is the interviewer, one person the interviewee, and one an observer. Have the interviewee choose a subject he or she will feel comfortable talking about. The observer should note how often and how accurately the interviewer paraphrases and summarizes. The interviewer should keep in mind that the idea is not to parrot the speaker's words, but to restate in the interviewers own words his or her understanding of what has been said. Allow enough time so that each member of the group has an opportunity to function in all three roles, as well as receive feedback on his or her performance as interviewer. Note how using these microskills effects the course of the interview, and be prepared to share your observations when you rejoin the larger group.

Microskill IV: Ownership of Feelings/Reflections of Feelings

If we wish to develop a good relationship with our students, one in which the student will feel free to confide in us or ask our help, it is necessary that we represent ourselves as persons to the class. Often students are unaware of the impact their behavior may have on teachers personally.

A simple expression of how a student's behavior is affecting you at that moment can be a powerful and yet nonthreatening way to confront that student. For example, "You know John, you've interrupted me seven times in the last half hour while I was trying to help someone else. It makes me lose my train of thought and I'm feeling frustrated and irritated now. What do you suggest we do about it?" This accurate reporting of your feelings in a nonjudgmental, nonthreatening way is often in itself enough to cause a positive change in the student's behavior. It has the added advantage of putting the problem on record in a concrete way for the student, yourself, and the rest of the class. It is not unusual for this approach to bring other students to your defense. The peer pressure created by other students on the misbehaving student to change his or her behavior can be the most effective help a teacher can receive. If the student's behavior is causing a problem for you, identify it as your problem. This is called sending an "I" message, as opposed to the "you" message teachers usually send. If you can honestly and candidly tell a student (or a whole class) how a specific behavior affects you, it makes it much easier for the student in turn to express his or her feelings openly to you. Before any mutually acceptable solution to a problem can be reached, both parties must fully understand the other's feelings and concerns.

In order to establish an effective interpersonal relationship, it is important to be able to respond with empathic understanding to another's feeling state. In the words of Carl Rogers, we want to communicate to the person we're helping that "I am with you...I can accurately sense the world as you are feeling and perceiving it." Important as this skill is in becoming an effective helper, it often proves the most difficult for a beginning helper to master. One of the primary reasons is that we ourselves are often not in touch with our own feeling states; or we incorrectly think we are expressing our feelings when in fact we are doing something very different.

In working with special needs learners, the vocational educator will often find that the nature of the student's handicap and the extra stress that having this handicap places on the student in the vocational education setting can give rise to a lot of strong feelings and emotions on the part of these special needs learners. Vocational educators will have an advantage in working with these students if they can understand how a student is feeling and give him or her an opportunity to express anger, frustration, anxiety, or pleasure in a given situation. In order to do this effectively, the vocational educators must also be able to recognize their own feelings in a given situation and deal with them appropriately. The following exercise is designed to focus attention on appropriate and inappropriate ways we express ourselves and our feelings.

DESCRIPTION OF FEELINGS*

Any spoken statement can convey feelings. Even a factual report--"It's three o'clock"--can be said so that it expresses anger or disappointment. However, it is not the words that convey the feelings. Whether the statement is perceived as a factual report or as a message of anger or disappointment is determined by the speaker's tone, emphasis, gestures, posture, and facial expression. This exercise does not deal with the nonverbal ways we convey feelings. It focuses instead on the kinds of verbal statements we use to communicate feelings.

We convey feelings by
- Commands: "Get out!" "Shut up!"
- Questions: "Is it safe to drive this fast?"
- Accusations: "You only think about yourself!"
- Judgments: "You're a wonderful person." "You're too bossy."

Notice that although each of the examples conveys strong feeling, the statement does not say what the feeling is. In fact, none of the sentences even refers to the speaker or what he is feeling. By contrast the emotional state of the speaker is the content of some sentences. Such sentences will be called "descriptions of feeling." They convey feeling by naming or identifying what the speaker feels. "I am disappointed." "I am furiously angry!" "I'm afraid going this fast!" "I feel discouraged."

The goal of this exercise is to help you recognize when you are describing your feelings and when you are conveying feelings without describing them.

Trying to describe what you are feeling is a helpful way to become more aware of what it is you do feel. A description of feelings conveys maximum information about what you feel in a way that will probably be less hurtful than commands, questions, accusations and judgments. Thus, when you want to communicate your feelings more accurately you will be able to.

Directions:

This is not a test. Complete only one item at a time as the steps show.

1st--Mark your answers for item 1 only. Do Not do the other items yet.
2nd--Compare your responses to item 1 with those of the other members of your small group. Discuss the reasons for any differences.
3rd--Turn to the pages titled "Discussion of Responses." One person might read aloud the paragraph for item 1. Discuss this until you all believe you understand the point being made.
4th--Repeat steps 1, 2 and 3 for item 2. Then continue this process in turn for each item until you have completed all ten items.

---

*A Handbook for Faculty Development, Vol. 2 by Wm. H. Berquest & Steven Phillips

DESCRIPTION OF FEELINGS--WORKSHEET

In each set below, all the sentences convey feeling, that is, any of them could have been spoken by the same person in the same situation. Each sentence, however, may be either of two different ways of communicating feelings by words.

Put a D before each sentence that conveys feelings *by describing* the speaker's feeling.

Put a No before each sentence that conveys feeling but *does not describe* what it is.

Item 1. ( ) a. Shut up! Not another word out of you.
b. I'm really annoyed by what you just said.

Item 2. ( ) a. Can't you see I'm busy? Don't you have eyes?
( ) b. I'm beginning to resent your frequent interruptions.
( ) c. You have no consideration for anybody else's feelings. You're completely selfish.

Item 3. ( ) a. I feel discouraged because of some things that happened today.
( ) b. This has been an awful day.

Item 4. ( ) a. You're a wonderful person.
( ) b. I really respect your opinions; you're so well-read.

Item 5. ( ) a. I feel comfortable and free to be myself when I'm around you.
( ) b. We all feel you are a wonderful person.
( ) c. Everybody likes you.

Item 6. ( ) a. If things don't improve here, I will look for a new job.
( ) b. Did you ever hear of such a lousy place to work?
( ) c. I'm afraid to admit that I need help with my work.

Item 7. ( ) a. This is a very poor exercise.
( ) b. I feel this is a very poor exercise.

Item 8. ( ) a. I feel inadequate to contribute anything in this group.
( ) b. I am inadequate to contribute anything in this group.

Item 9. ( ) a. I am a failure--I'll never amount to anything.
( ) b. That teacher is awful--he didn't teach me anything.
( ) c. I'm depressed because I did so poorly on that test.

Item 10. ( ) a. I feel lonely and isolated in my group.
( ) b. For all the attention anybody pays to what I say I might as well not be in my group.
( ) c. I feel that nobody in my group cares whether I'm there or not.

DISCUSSION OF RESPONSES

Item 1.	a...No.	Commands such as these convey strong emotion but do not name what feeling prompted them.
	b...D.	The speaker says he feels annoyed.
Item 2.	a...No.	These questions express strong feeling without naming it.
	b...D.	The speaker says he feels resentment.
	c...No.	These accusations convey strong negative feelings. Because the feelings are not named we do not know whether the accusations stemmed from anger, disappointment, hurt or what.
Item.3.	a...D.	The speaker says he feels discouraged.
	b...No.	The statement appears to describe what kind of day it was. In fact, it expresses the speaker's negative feelings without saying whether he feels depressed, annoyed, lonely, humiliated, rejected or what.
Item 4.	a...No.	This value-judgment reveals positive feelings about the other person but does not describe what they are. Does the speaker like the other person, respect him, enjoy him, admire him, love him or what?
	b...D.	The speaker describes his positive feeling as respect.
Item 5.	a...D.	This is a clear description of how the speaker feels when with the other person.
	b...No.	First, the speaker does not speak for himself but hides behind the phrase, "We feel." Second, "You're a wonderful person" is a value-judgment and not the name of a feeling.
	c...No.	The statement does name a feeling (likes), but the speaker attributes it to everybody and does not make clear that the feeling is within him. A description of feeling must contain "I," "me," "my" or "mine" to make clear that the feelings are the speaker's own--are within him.
Item 6.	a...No.	This conveys negative feelings by talking about the condition of things in this organization but does not say what the speaker's inner state is.
	b...No.	This is a question that expresses a negative value-judgment about the organization. It does not describe what the speaker is feeling.
	c...D.	This is a clear description of how the speaker feels in relation to his job. He feels afraid.

Expressions a and b are criticisms of the organization that could come from the kind of fear described in c. Negative criticisms and value-judgments often sound like expressions of anger. In fact, negative value-judgments and accusations often are the result of the speaker's fear, hurt feelings, disappointments or loneliness.

Item 7. a...No. This is a negative value-judgment that conveys negative feelings but does not say what kind they are.

b...No. Although the speaker begins by saying, "I feel," he does not then name what he is feeling. Instead he passes a negative value-judgment on the exercise. Note that merely tacking the words "I feel" on the front of a statement does not make it a description of feeling. People often say "I feel" when they mean "I think" or "I believe;" for example, "I feel the Yankees will win" or "I feel you don't like me." Many persons who say they are unaware of what they feel or who say they don't have any feelings about something, habitually state value-judgments without recognizing that this is the way their positive or negative feelings get expressed.

The speaker could have said that he felt confused or frustrated or annoyed. He would then have been describing his feelings without evaluating the exercise itself.

Many arguments could be avoided if we were careful to *describe* our feelings instead of expressing them through value-judgments. For example, if Joe says the exercise is poor and Fred says it is good, they may argue about which it "really" is. However, if Joe says he was frustrated by the exercise and Fred says he was interested and stimulated by it, no argument should follow. Each person's feelings are what they are. Of course, discussing what it means that each feels as he does may provide helpful information about each person and about the exercise itself.

Item 8. a...D. The speaker says he feels inadequate.

b...No. Careful! This sounds much the same as the previous statement. However, it says that the speaker actually *is* inadequate--not that he just currently feels this way. The speaker has passed a negative value-judgment on himself; he has labeled himself as inadequate.

This subtle difference was introduced because many people confuse feeling and being. A person may *feel* inadequate to contribute in a group and yet make helpful contributions. Likewise, he may *feel* adequate and yet perform very inadequately. A person may *feel* hopeless about a situation that turns out not to be hopeless.

One sign of emotional maturity may be that a person does not confuse what he feels with the nature of the situation around him. Such a person knows he can perform adequately even though he *feels* inadequate to the task. He does not let his feelings keep him from doing his best because he knows the difference between feelings and performance and that the two do not always match.

Item 9. a...No. The speaker has evaluated himself a failure.
b...No. Instead of labeling himself a failure the speaker blames the teacher. This is another value-judgment and not a description of feelings.
c...D. The speaker says he feels depressed.

Statements a and c illustrate the important difference between passing judgment on oneself and describing one's feelings. Feelings can and do change. To say that I am now depressed does not imply that I will or must always feel the same. However, if I label myself as a failure--if I truly think myself as a failure--I increase the probability that I will act like a failure. One woman stated this important insight for herself this way: "I have always thought I was a shy person. Many new things I really would have liked to do I avoided--I'd tell myself I was too shy. Now I have discovered that I am not shy although at times I *feel* shy."

Many of us avoid trying new things by labeling ourselves. "I'm not artistic." "I'm not creative." "I'm not articulate." "I can't speak in groups." If we could recognize what our feeling is beneath such statements, maybe we would be more willing to risk doing things we are somewhat fearful of.

Item 10. a...D. The speaker says he feels lonely and isolated.
b...No. This conveys negative feelings but does not say whether he feels angry, lonely, disappointed, hurt or what.
c...No. Instead of "I feel" the speaker should have said "I believe." The last part of the statement really tells what the speaker believes the *others feel* about him and not what he feels.

Expressions c and a relate to each other as follows: "Because I believe that nobody in my group cares whether I am there or not, I feel lonely and isolated."

REFLECTION OF FEELINGS

When we say reflection of feelings, we mean using a very selective listening process which blocks out the content issues in what is being said and focuses on the feelings being expressed instead. For example if a student says, "I quit! I've tried this stupid problem three times and I just can't do it!", we have a wide variety of ways we can respond. The most common approach would be to either correct or criticize the student for his attitude/outburst, or to offer to help with the problem. More often than not, however, there is more to this kind of a reaction than the single inability to get the problem right. Using a reflection of feeling approach, the conversation might go like this.

Teacher: "It sounds like you're really frustrated, Juan."

Student: "Yeah, I just can't do anything right today."

Teacher: "You're discouraged by what has happened today."

Student: "You bet I am. First my brother took off with my leather jacket this morning, then my mother forgot to make my lunch, and now I can't even do a stupid math problem."

Teacher: "So you're pretty upset now about all these things happening to you."

Student: "Uh huh. I guess I blew it a little bit when I got so angry."

Teacher: "Sounds like you had a good reason to. How do you feel now?"

Student: "Better, I guess. Thanks for listening."

Teacher: "Thanks for telling me about it. I'll ask the class at the end of the period if anyone has an extra sandwich or whatever for your lunch. I'm sure we'll come up with something. Do you want any help with that problem now or would you like a few minutes to yourself?"

Student: "No. Let me try it again first."

Teacher: "O.K."

The advantage in using this reflective listening style is that the student is allowed the time and space to explore his own feelings and find his own resolution. In this situation the teacher correctly identified the problem as belonging to the student and helped him clarify his thoughts and feelings. A great deal of tension and frustration that builds up in an adolescent (or anyone else) can be released by having an opportunity to express and explore the sources of frustration. By keeping the focus of the conversation on the student and his feelings, the teacher was able to show his respect for and confidence in this student. Only after the student himself showed his readiness to move off the subject did the teacher offer his help or advice.

EXERCISE IV: REFLECTION OF FEELINGS

In order to develop your reflection of feelings skills, you may participate in the following exercise: working in groups of three people, conduct an interview using primarily the microskill of reflection of feelings. You may use your other counseling skills also, but focus on the feeling content of the interview. Divide your group so that one person is the interviewer, one the interviewee, and one an observer. Have the interviewee choose a subject he or she will feel free to talk about and which has some strong emotional content attached to it. Since the subjects raised during this exercise are frequently of a personal nature, respect the confidentiality of the content of the interviews. Allow enough time so that each member of the group has an opportunity to function in all three roles, as well as receive feedback on his or her performance as interviewer. Note how using this approach effects the course of the interview, and be prepared to share your observations when you rejoin the larger group.

When we talk about the encouragement of a student we mean focusing on the positive aspects of the student's behavior and personality. To act in an encouraging manner means to treat the student with respect, faith, and trust. In working with special needs learners in a vocational education setting, the teacher must keep in mind that the student's present lack of ability in no way diminishes this need to be treated in a positive and caring manner. The late Rudolf Dreikurs, author, psychiatrist, and lecturer, said that "a child needs encouragement like a plant needs water." To use these techniques of encouragement in the shop setting, it is first necessary to realize that encouraging a student is a process, not a single act. In order to be effective in using these techniques, it will be necessary not only to accept your students as they are, but to accept yourself also. As you examine your own beliefs, communication patterns, and behaviors, you may find it necessary to make some changes.

photo 4-3 3¾ x 4½ ?

A student needs encouragement like a plant needs water.

As you begin this process of change, you will inevitably make mistakes. This is of course quite natural and we must accept it, for if we can't accept our own failures, we will be regularly discouraged. By accepting our own mistakes as a natural and important part of the learning process, we encourage our students to do the same. The focus should be on progress and improvement, not on mistakes and failure, in ourselves as well as in our students.

The Goals of Misbehavior

Most teachers find it relatively easy to be positive and encouraging toward their students when the class is running well and smoothly. It is when students misbehave and conflicts arise that the difficulty comes. Often the real issue is not the problem at hand, but rather a struggle by both the student and teacher to maintain their self image, especially with regard to their power and status. Without a clear understanding of what the true goal of the student's misbehavior is, the teacher is often at a loss and may feel irritated, threatened, hurt, or utterly defeated. Fortunately, these very emotions which the student's behavior evokes contain the key to understanding what is really going on.

Attention-Getting Behavior. By far the most frequent misbehavior encountered by teachers is the play for attention. In this category would be included wandering around the room, talking out of turn, asking an excessive number of questions, clowning around, and in general, any behavior which calls attention to the student in an inappropriate and disruptive fashion. The student usually feels he or she has no chance to gain status or acceptance by making constructive contributions to the class, so instead seeks to gain the needed attention through misbehaviors. The teacher's normal reaction is one of annoyance or irritation. When corrected, the student usually stops the behavior, only to continue it again a few minutes later.

Power. If a student becomes increasingly discouraged in the search for acceptance and affirmation of self-worth, she may begin to engage those in authority in a power struggle. These students believe that in order to be accepted and worthwhile they must be the boss. They will do only what they want, and nobody can tell them what to do. A teacher attepting to control or overpower these students meets with greater and greater resistance. Any teacher who is drawn into a power struggle with a student is lost. Even if the teacher scores a temporary victory, it only reinforces the student's belief that power is of paramount importance. The student's fighting is not restricted by any sense of moral obligation or responsibility. They can be creative and inventive in their confrontation techniques. The teacher will feel angry and threatened by the student's behavior, and feel that he has lost control of the situation. The struggle for power with a student cannot be won. The only effective tactic is to refuse to engage in the struggle from the beginning.

Revenge. Once a student feels utterly rejected, having lost faith in himself and everyone else, he can no longer gain a feeling of significance by either of the two methods explained above. Feeling hurt by those around him, he wants to hurt them in return. This student gains satisfaction by being cruel or vicious, and is very skilled at hurting people in a way that evokes a retaliatory response that only serves to confirm him in his negative view of the world. Seeking to get back at this student for his behavior or to get even only intensifies the misbehavior or causes him to choose another method of attack.

Assumed Disability. The student who exhibits this behavior is extremely discouraged but, because of her passivity, is easy to overlook. She has given up, and feels that she is such an utter failure that there is no longer any point in trying. Hiding behind a real or assumed disability, she refuses to participate or contribute at all, feeling this behavior is preferable to trying and failing again, with the embarrassment and humiliation that goes with it. This student is very hard to reach, and the teacher will feel hopeless herself and unable to come up with anything to get the student motivated. The teacher's tendency with this student is to just give up and leave this student alone, which is exactly what the student wants.

EXERCISE IV--THE GOALS OF MISBEHAVIOR: CASE STUDIES

In order to gain some facility in recognizing the different goals of misbehavior, a number of case studies have been included. Read each case and then decide what you think the goal is and why. If you are working with a group, share your thinking and try to reach a consensus. A discussion of each case is included in the Trainer's Manual if any questions remain, or if further clarification is needed.

Janet

Janet is the oldest of the three girls, each spaced two years apart. She is very eager to please. She wants to make sure she gets everything right and asks that directions be repeated three or four times in her restaurant management course before she does anything. If she makes a mistake, she is very upset and eager to do make-up or extra credit work. She often turns in double what is expected. On weekends she takes home several books and asks the teacher for assignments to go with them. She is nervous about passing and wants all the extra help she can get. When reassured by the teacher that she is doing well, she puts even more effort into whatever she is doing. Although in the eleventh grade, Janet is reading on the sixth grade level.

Janet's parents are extremely concerned about her progress and grades. They want her to graduate and get a job as soon as possible. When the teacher sent home a letter commending Janet for work well done, they immediately assumed something was wrong and came to the school for a meeting. It turned out that they had not read the letter.

GOAL________________________________

Donald

Donald, age 16, was in the high school's resource room designed to meet the needs of slow learners. He seldom did any work unless it was in some way related to minibikes or motorcycles or snowmobiles. The teacher therefore often used manuals and advertising materials from a local snowmobile dealer as reading material for him. About every 10 minutes Donald would make a Woody Woodpecker call at the top of his lungs. Usually, when the teacher reprimanded him, he would just smile and get back to his work. Sometimes he would challenge the teacher to try to make him stop and would make the noise again at a louder level.

Numerous detentions seemed to do no good. Indeed, he often failed to show up after school. He also didn't seem to care if he were sent to the principal's office.

Donald is the only child of older parents. The mother is very concerned about Donald's behavior and the fact that he has been getting Ds and Fs in every subject for the last three years. The father, however, takes little interest in Donald's academic progress. He is a mechanic and has little time to spend with Donald. He does, however, take part in snowmobile races with his son on weekends and is very proud of the fact that Donald has won a number of ribbons in those events. He feels that the situation in school is something that Donald will "just get over" and is not too concerned about the grades that Donald is getting.

GOAL__________________________________

Steven

Steven is the second of five children. His older brother, though two years his senior, is only one grade ahead of him in school. He looks up to this brother, Butch, and is quite proud of the fact that the two of them took part in the hold-up of a local package store last year. Butch is on probation but, because of his age, Steven was let go with a warning. Steven was born with a severe eye problem and has had eight operations in the past five years in an attempt to correct it. He is cross-eyed and the other students make fun of him constantly because of it. The next operation may mean blindness if it is unsuccessful. He is skinny, undernourished, and because of his severe poverty, poorly dressed. All of this further excludes him from the activities of other students. Steven is 15 years old.

In auto shop, Stevie sits without moving for hours at a time. He seldom does any work unless the teacher sits down and works with him. He complains that everything is too hard and too boring. The teacher keeps attempting to create more interesting and easier work for him. He is content to do puzzles and color games that are intended to help him with depth perception. Sometimes he shoots a rubberband or two at others but otherwise he keeps to himself. He never speaks, no emotion ever shows on his face. The teacher says that he feels sorry for him. He is also beginning to feel some frustration because nothing he does brings any interest into the boy's face.

GOAL__________________________________

Kevin

Kevin is the oldest child in a family of three. He has a brother two years younger and a sister five years younger. His mother works in the principal's office.

Kevin is in the tenth grade but, because of his reading disability, he can read at the fifth grade level. He travels with a group known in school as the "greasers" and seems to be popular with the boys in the group. The girls seem a bit scared of him.

In electronics class he will work as long as the work interests him. When he gets bored, he strikes some other child, shoots rubber bands or trips whoever is going up the aisle. When reprimanded he either snarls or gives a smart remark. He has told the teacher that she can't make him do anything. Trips to the principal's office do no good and he has acquired some twenty detentions that he has yet to serve. He seems to enjoy his notoriety and often prefaces his actions in class with a "Watch this, guys" addressed to some of his friends. The teacher has tried to have private talks with him about his behavior and has tried to make a number of contracts with him. He has broken them all in a very short time.

The teacher feels that she had consistently tried to give Kevin the benefit of the doubt and has tried to work things through with him. She can't understand how he can then turn around and break their agreements. Mother is exasperated and pretends he doesn't belong to her while in school. Father can't be reached for comment.

GOAL____________________________________

Earl

Earl doesn't have his homework done for the third time this week. He is sullen when asked why he didn't do his homework. He says he doesn't see why he should have to. He's in school all day and doesn't think the school has the right to impose on his free time. The teacher sent him to the vice-principal for a talk. He then let the air out of the vice-principal's tires. None of the other kids want Earl on their team when they set up a ball game. He is a sore loser and calls the others cheaters whenever they score a point. He has been known to beat up kids who try to get him to cooperate. The teacher feels guilty because she actively dislikes Earl and wishes that somehow he could be transferred out of her class. She often wonders how a kid could get to be so mean.

GOAL____________________________________

Ray

Ray has just shot a rubber band at the lathe while his shop teacher was demonstrating its use. He asked who did it. Of course, there was no reply. Several of his classmates eyed him nervously but no one told. Ray has done none of the required work all period. He has told the teacher that the material is irrelevant and boring and that he shouldn't have to do anything if he doesn't want to. He has tried to enlist support from other students, calling them "dumb" for cooperating with the teacher. The teacher is feeling defeated and begins to wonder "Who is in control of this class, him or me?" At that moment another rubber band hits the lathe.

GOAL____________________________________

Ken

Ken is fourteen years old and in a ninth grade Sheet Metal Class. He frequently engages in disruptive behavior that varies from day to day. On a particular day, he will have trouble getting to his work bench or, once there, he will just sit on it. Sometimes he will sit on someone else's bench.

On another day he will annoy the person working with him by bending or hiding pieces of their project.

On one occasion, Ken would not stop writing when the teacher asked him to. Finally the teacher took the pencil away from Ken. Ken took another pencil out of his pocket and challenged the teacher by holding it out at arms length away from the teacher. When the teacher was finally able to get the pencil away from him (accompanied by the laughter of the rest of the class), Ken put his head down on his bench and pretended to go to sleep. The teacher then told him to go to the principal's office. At this, a loud snore came from Ken. The class laughed even more. The teacher became very uptight and decided to ignore Ken for the remainder of the period.

GOAL ____________________________

Using Confrontations and Correctives For the Four Goals (Rudolf Dreikurs' Method)

The following procedure is suggested for teachers who have familiarized themselves with the section on the goals of misbehavior and feel they have some insight into a particular student's problems. It is emphasized that in using this goal disclosure conversation, the teacher keep in mind that the desired outcome for using this procedure is to develop a mutual understanding between student and teacher as to the purpose of the behavior that is of concern. It may be of value to the teacher who is unfamiliar with this procedure and has not used it before to find a friend with whom they can sit down beforehand and role play the situation before actually confronting the student in question. It is also important for the teacher using this procedure to have given consideration in advance to what they wish to say to the student after the correct goal has been determined and disclosed. This is a potentially powerful and creative situation and one in which the teacher can wield a considerable amount of influence. The teacher, therefore, should have in mind specific recommendations and well thought-out plan to use with the student to change the type of behavior that has been occurring and causing the problem. Be prepared to offer the student a more constructive and potentially satisfying way of interacting with both the teacher and the school setting.

A number of steps are important to successful use of this procedure. The following information will be helpful but is not intended to act as a prescription. The IDEA is important, not the specific wording, the latter needing variations to suit the situation, age of the student, intellectual ability, etc.

Step One. Observe the student carefully for specific behaviors in relation to things and significant people (teacher, friend, parent). It is important to have detail in mind, a "blow by blow account."

Step Two. Arrange a time alone with the student when there is no conflict between you. (Can be used as part of a private interview, discussion of classwork, case conference, etc.)

Step Three. Now you will lay out the specific behavior that concerns you. Special needs students are often rather concrete, may have limited attention spans and ability to formulate problems -- you do it. Keep the wording tentative-you are not accusing, but suggesting, wondering, etc. If the student wants to deny it he can, and if you are wrong in your formulation you can try again. Denial does not necessarily mean you are wrong. The following are suggested phrasings:

A. When you do (specific concrete acts).
I notice that sometimes you do ________?
Do you notice that you do ________?
Several students have told me that you ___

B. Can you tell me why you do that?
Do you know why you do that?
Have you wondered why you do that?
(Student usually says no or gives some rationalization).

C. Get student's permission to tell him what you think, eg. Do you mind if I tell you what I think? Could I take a guess as to why you do that?
Well, I've been thinking about it... could it be that when you do (repeat specifics) you (add here wording appropriate to the goal you guess is operating. See below.)
Well, I've wondered about it and could it be that when you do (specifics) you (add goal phrasing)?

Usually a student will give permission for you to tell what you think. If not, either ask again in a different way until you get an O.K. or wait and try again another time changing the wording to "I'd like to tell you what I think. Could it be, etc."

D. Attention

Could it be that you want me to notice you?
Could it be that you want to keep me busy with you?
Could it be that you want me to pay special attention to you?
Could it be that you want special treatment?
Could it be that you want the others in the class to notice you?

Power

Could it be that you want to show me"I can do what I want?"
Could it be that you want to show me that you are the boss?
Could it be that you want to be the teacher and tell everyone what to do? (For children only)
Could it be that you want to show me that I can't stop you?
Could it be that you want to show me that I can't make you do what I want you to do - that you will decide what you will do?

Revenge

Could it be that you want to get even with me?
Could it be that you want to punish me? Someone else?
Could it be that you feel that others are not fair to you and therefore you want to get even with them?
Could it be that you feel that nobody likes you and you want to get even?
Could it be that you are feeling so hurt that you want to hurt back?

Assumed Disability

Could it be that you feel that everyone is so smart and that everyone is so capable and that you are not as smart and as capable as they so you would just like to be left alone?
Could it be that you would like to do a really good job but don't think you can so you might as well not do anything at all?

Step Four. Unless you get a real "poker faced" student, there will usually be some recognition reflex on the face--some sign that the student senses the importance and correctness of your formulation. Don't be fooled by words. Sometimes the student says "NO" but her smile or other signs (surprise,blush, sudden nervousness, etc.) indicates you're right. It may be the goal formulation that is not correct, your wording didn't strike the student right; or the student is covering up. Once you get a recognition reflex, try going one goal beyond just to be sure. It is possible for two goals to be operating at once.

Step Five. Corrective: Always reassure the student that you realize he/she did not understand the reasons for his/her behavior(which is almost always true). He/She may feel found out and fear retaliation, get defensive, and be unavailable for any corrective measure. Join him/her by saying you realize his/her behavior made sense to him/her, but also got him/her into trouble. Now try to work out an agreement with her to try something more constructive. You should have thought of something in advance so you won't be caught short. It is helpful to select something over which you have some control so you can follow through and provide positive feedback.

In power goals you may have to talk with the student after the confrontation about whether being the boss is all that much fun. Usually it isn't all pleasant and there has been rejection,punishment, etc. Tell the student you can help him/her be happier and have a better time by being boss sometimes and letting others be in charge sometimes too. Try to manipulate the classroom(school) environment so he/she can have some experiences where he/she is in control, gets to choose, lead, etc.

One always goes through a transition period with discouraged students. First you have to give much time, attention, etc., but for constructive activity. Gradually your aim is to reduce your involvement and switch the student to gratifications from peers, realistic activities, and personal growth.

Encouraging Words

The preceding section has dealt with students' misbehavior, ways to determine the degree of discouragement felt by a student, and ways to make them aware that we understand their goal and motivation for this misbehavior. Important as it is for the teacher to have this information about the student, it is only half the process. The other half lies in developing ways for the teacher to encourage an already discouraged student. Comments that do encourage a student are one's that imply the teacher's faith , respect, and trust, for that student. With many special needs students who have a history of failure or low level success in their previous school experiences, one finds that the students have lost faith in themselves. It is therefore essential for the instructor to begin by giving back the student their faith and belief in their ability to succeed. The instructor in reviewing the discouraged student's work should emphasize the process of learning at least as much as the product which the student is able to turn out. Often times, because of academic or physical disabilities,the disadvantaged student will not be able to generate products of as high a quality as the rest of the students. It is therefore essential for the instructor to focus on the process of learning how to do a task rather than just judging the finished product and discouraging the student and his or her efforts. Focusing on the good part of what someone did even if the whole is not perfect is another effective technique for encouraging a discouraged student. For many students, because of their lack of concentration or motivation, they will be unable to complete a project, or if they do complete it, it will be poorly done. The instructor must resist the inclination to criticize this finished product and instead find those portions of the student's work which have indeed been well done. The important thing to keep in mind is to create in the mind of the student an attitude of success and of progress. Focus on improvement from the past even if the improvement is only slight and the finished product is still substandard. Emphasize the positive aspects of the student's work and phrase your remarks in a positive manner.

Comments that should be avoided by the instructor and that serve to discourage the students are remarks that compare one student with another. It is consistently discouraging for a student to have his work compared disparagingly with that of another. It is also discouraging for a student to be compared with his siblings although this is often the case. Often times with a discouraged student, the source of their discouragement has been an inability to live up to the performance of an older sibling. The teacher should also avoid building up the student in one breath and then deflating them with the other. If offered a choice between positive and negative statements, a discouraged student will usually focus on the negative aspects of what was said. Paying the student a "good but..." compliment virtually assures the fact that the student will hear the "but" part of that statement and not focus on the compliment that was built into it. It is also discouraging for the student to have feedback on their work focus only on the product they are producing rather than on the time or effort or process that they went through to produce that product. The instructor must be aware that even a chance remark made to the student that implies the teacher's lack of faith, trust, or respect will be heard loudly and clearly by that student. If the students in question are already discouraged, it will further confirm them in their lack of faith and self-esteem in their own ability. In order to assist the vocational educator in encouraging their special needs student, the following list called the BRIVIHAFO positive feedback generator has been included. Students who consistently misbehave in class can often show a considerable amount of creativity and ingenuity in defeating their instructors. If the teacher can focus on those positive qualities that the student is demonstrating and reinforce these qualities while simultaneously redirecting them in a more positive and constructive manner, the student will be on his or her way to receiving the kind of encouragement that is needed to operate successfully in the mainstream of the educational system. If there are students of yours whose positive qualities consistently escape you, put their name at the top of the sheet and then check off those character traits they possess. Keep these traits in mind when you are giving encouragement to that student, and use them as a basis for building respect and trust between you.

The Encouragement Worksheet has also been included to give you an opportunity to review your understanding of these concepts. Allow yourself about twenty minutes to complete the sheet. If you are working with a group, discuss your answers and any discrepancies that arise with them until you all feel clear about the points being made. A discussion of each sentence is included in the Trainer's Manual to assist in your understanding. The BRIVIHAFO POSITIVE FEEDBACK GENERATOR and the encouragement worksheet now follow.

BRIVIHAFO POSITIVE FEEDBACK GENERATOR*

Character traits in themselves are neither positive nor negative. It is what the child does with those traits that counts. If we can see through a student's misbehaviors and recognize his strongest qualities, we have made the first step in helping him to redirect his behavior. The very traits that are now being expressed in negative ways can be redirected to more positive and constructive behaviors.

Student's name ______________________________

1. supportive
2. kind
3. attentive
4. cooperative
5. stimulating
6. enthusiastic
7. trustworthy
8. perceptive
9. wise
10. warm
11. reassuring
12. encouraging
13. dependable
14. loyal
15. thoughtful
16. considerate
17. influential
18. affectionate
19. vital
20. tactful
21. zestful
22. helpful
23. accepting
24. refreshing
25. inclusive
26. thorough
27. valuable
28. sensitive
29. consistent
30. creative
31. curious
32. intuitive
33. resourceful
34. leader
35. directive
36. tender
37. responsible
38. alive
39. steadfast
40. forthright
41. reasonable
42. loving
43. insightful
44. energetic
45. uplifting
46. honest
47. trusting
48. friendly
49. right on
50. deferential
51. positive
52. useful
53. observant
54. sympathetic
55. aware
56. neat
57. cool
58. delightful
59. empathetic
60. inspiring
61. zealous
62. clever
63. reliable
64. open
65. astute
66. funny
67. optimistic
68. free
69. organized
70. careful

---

*The Brivihafo Generator is named for its originators: David Britton, Michael Vitiello, Robert Hawley, and John Foss.

Encouragement Worksheet. Below are some phrases that are commonly heard in classrooms. Put an E next to the sentences that are encouraging. Put a D next to discouraging sentences. Can you identify the flaws in the discouraging words? Why do they have a discouraging effect? Why would the encouraging sentences have a positive effect? Write a few words to indicate your thinking next to each sentence. The Trainer's Manual includes a discussion of each sentence.

__________ 1. That was just beginner's luck. __________

__________ 2. Well, you're still a long way from being a good student. __________

__________ 3. You've made a big improvement on this week's math quiz. Last week you got six right. This week, eight are correct. __________

__________ 4. I never would have believed that you could handle that assignment. __________

__________ 5. I think you have what it takes to tackle that project. __________

__________ 6. If you held your book a little further from your face, your eyes might not get so tired. Just a suggestion. You decide. __________

__________ 7. The class is doing an excellent job of keeping the art supplies in order so that everyone can find what they need. __________

__________ 8. Your multiplication is improving but you still need to work on making your papers neater. __________

__________ 9. If you study every night, there is absolutely no reason why you can't pass the test at the end of the week. __________

__________ 10. You're always biting off more than you can chew. __________

__________ 11. I appreciate your help. The boards are much easier to write on since you washed them. __________

__________ 12. How nice you could figure that problem out for yourself. Your skills are growing. __________

__________ 13. A kindergarten student could do it better than that! (said to an older student) __________

__________ 14. You've figured out how to find the books you need in the library. That's terrific! __________

__________ 15. You do a fine job of bringing everything you need to class. __________

__________ 16. So - you finally finished something. __________

__________ 17. It's true that you made a mistake. Let's see what you can learn from it. __________

_________18. You think you can't do it but I think you have it in you to work at it. Let's try it together a few times and see how it goes. ________________________

_________19. You'd be so attractive if you'd only comb your hair. ________________________

_________20. I can understand how you feel but I'm sure you'll be able to handle it. ____

REMEMBER: THE ULTIMATE TEST FOR WHETHER OR NOT YOU HAVE BEEN ENCOURAGING IS THE REACTION OF THE INDIVIDUAL STUDENT.

Trainer's Manual For Section Three-Coping Skills

This handbook was designed for use as an inservice professional development resource for teachers working with special needs students mainstreamed in vocational environments. A presumption underlying its organization and content is that a competent teacher or administrator on staff in the school acting as an inservice teacher educator would supervise the organization, operation, and teaching of the learning experiences.

Further, it was presumed that the trainer would work with staff development personnel in the regional offices of the Massachusetts Department of Education. Department personnel are knowledgeable about the handbook and can assist local schools in developing an inservice training process. They can also assist the local schools to generate support funds through the Massachusetts State Department of Education Commonwealth Institute for Inservice Education.

Trainer's Manual For Section Three — Coping Skills

OBJECTIVES OF THIS SECTION

To provide examples of learning activities so that the trainer will be able to lead participants in a variety of exercises designed to increase their self-awareness, develop their interpersonal skills, and equip them with techniques of behavior management which will enable them to better serve the needs of their special education students.

INTRODUCTION

Special needs students make extra demands upon vocational educators, and the educator's customary way of interacting with students is often not successful with a variety of special needs learners. The normal signals and clues given to students to guide the course of the class or of a conversation are frequently not picked up by these learners, whether because of auditory problems, visual problems, or simply because patterns of communication that are considered normal are not the usual pattern for these students. Instead, miscommunication may become the norm and feelings get hurt or anger expressed at what seems little or no provocation on the teacher's part. The vocational educator in turn may become angry or feel threatened by the situation and find himself or herself involved in an unpleasant confrontation. By utilizing some of the interpersonal skills presented in the exercise below, the teacher can avoid many of these power struggles arising with special needs learners, remaining in control of the class while still providing support and encouragement for the special needs learner. The key concept to master in achieving this goal is clarity of communication.

Sensitivity in the Training Process

In many of the exercises included in this section the participants will be dealing with personal attitudes, feelings, and emotions of a potentially powerful nature. The trainer should constantly remain aware of this aspect of the training process and be sensitive to the needs of group members. Specifically this means checking with the participants first before making abrupt transitions from one segment of the workshop to another. In the extensive interview portions of workshop exercises, issues are often raised which can't be simply chopped off in mid-sentence. If a group needs extra time and the other small groups have finished allow them to conclude at their own pace and rejoin the large group when ready. Check frequently to see if the participants have any questions or comments. It is important to the learning process in this section that an open climate exist where ideas and feelings can be freely expressed and shared. The trainer is largely responsible for creating this climate.

Working Design

There are several units within the Coping Skills section that have no specific exercises attached to them, but are important as background information for realizing the objectives of this section (see Objectives and Introduction for Section Three in participant's manual). It is up to the trainer to be familiar with all of this material so he or she can choose those portions which are relevant to a specific inservice workshop. The relevant pages may be copied and distributed to workshop participants to read at that time, or to take home as support materials. The trainer should include variety in the presentation of workshops, and avoid using a straight lecture format. The Resource Section has a number of suggestions for support materials which can be used to heighten the interest and strengthen the content of the presentations. Do not try to include too much material in each segment. Allow time for discussion, and try to build in flexibility for when your carefully prepared schedule is not met. Be clear about the objectives you have for each workshop, and build enthusiasm for it in yourself as well as your participants.

SELF-AWARENESS

The instructions for the participants in this exercise are all self-explanatory. Read through and do the exercise yourself before attempting to administer it to others. It will be helpful to have your own list of attitudes to share with the group on Step 3. This can be a difficult exercise to process after the descriptions have been completed, especially if you are working with a large group (20 or more). The most desirable situation is to be able to break up into small groups of five or six people. Explain that, of course, no one is obligated to disclose any of their descriptions if they don't wish to, but it is usually very helpful to be able to discuss your ideas about your students with other teachers. See if you can find any correlation between teachers' attitudes toward their students and their feeling of how successful they are at their jobs. Point out that attitudes can be changed and new ways of behaving can be developed, which is the purpose of inservice training. Suggest that teachers keep their descriptions and look at them again after a week of teaching. Ask them to be aware of these descriptions and see if they can detect how their values are reflected in their interactions with their students. If this manual is being used throughout the course of a school year, you may want to readminister this self-evaluation at the end of the school year to help teachers see how they may have changed and developed.

Instruction for Use of Video-tape Equipment with Micro-skills Exercise Units

If video-tape equipment is available or if it can be obtained by the individual doing the inservice training, it will be a considerable advantage. Often teachers are unaware of how they appear to students because of their involvement with the educational portion of their jobs. The use of video-tape equipment offers vocational educators an opportunity to see and hear themselves as they are perceived by their students. It may be awkward or embarrassing for some of the trainees when first using this video-tape equipment. Offer them an opportunity to familiarize themselves with it if they feel it would make them more comfortable before they begin to do the role-plays in the instructional units.

It is recommended that video-tape equipment be used for the first micro-skill on the nonverbal listening. It would be suitable for video-tape equipment to be used in the exercises on open and closed questions, paraphrasining and summarizing skills, and reflection of feeling. It is recommended in each of those exercises that people work in groups of three; one person will be the interviewer, the second person will be the interviewee, and the third person will be the observer and the camera person. Have each interviewer-interviewee pair be filmed in a role-play sequence and then replay that sequence for all three people to see. At that time, they may either go back and look at specific behavior that was observed or have a general discussion on the effectiveness of the interviewer's style. Then change roles and repeat this process. Change roles again so that all three individuals will have an opportunity to function in all three roles as well as receiving feedback on their performance.

Exercise IA: Inappropriate Nonverbal Listening. First read through and familiarize yourself with the participants' section of the manual on Communication Skills. Be prepared to give an oral presentation on the skill you are teaching before beginning the role-play exercises. Giving a role-play demonstration of the skill yourself before breaking the participants into small groups will help everyone gain a clear idea of what is expected of them. Use either another trainer or a participant volunteer to conduct the demonstration. You may wish to arrange this beforehand to save time in choosing a subject for the interview.

Then divide the workshop participants into pairs. The task will be for one person to talk about a subject of his/her choosing for two or three minutes. The listener will frequently break eye contact, shift about, and wriggle restlessly. Instruct the poor listeners to check their watches frequently, yawn, change the subject, address remarks to other people in the room, and generally pay poor attention to the speaker. Have the members of each pair reverse roles and repeat the process. Then reassemble the group and elicit feedback on how it felt to be on the receiving end of this behavior.

Some suggested questions to ask to facilitate the learning process:

1. How did it feel to be listened to that way?
2. Were you able to say what you intended?
3. Did you decide not to say things you had planned to?
4. Did you feel the listener cared about you or what you had to say?

Exercise IB: Appropriate Nonverbal Listening. Repeat the process for Exercise IA. This time focus on displaying good nonverbal behavior.

Some suggested questions to ask:

1. Were you more comfortable this time when you were talking?
2. Did you feel you were really being listened to? Why or why not?
3. Did you enjoy the conversation more than the first time?
4. Do you think you can look like a good listener?
5. Do you think you are a good listener?

Exercise II: Open and Closed Questions

First read through and familiarize yourself with the participants' section of the manual on Communication Skills. Be prepared to give an oral presentation on the skill you are teaching before beginning the role-play exercises. Giving a role-play demonstration of the skill youself before breaking the participants into small groups will help everyone gain a clear idea of what is expected of them. Use either another trainer or a participant volunteer to conduct the demonstration. You may wish to arrange this beforehand to save time in choosing a subject for the interview.

Have each group count off by three, i.e., 1, 2, 3; 1, 2, 3, ...so each person in each group is either a one, two, or three. If there are one or two extra people have them each join an existing group. To start, the ones will be the interviewer, the twos will be the interviewee, and the threes will be an observer. Have each interviewer role play an interview using only good listening skills, open and closed questions. The situations may be a teacher talking to a troubled student, a real interview to get to know the interviewee better or help him/her solve a current problem, or any other situation of the interviewee's choosing. Allow five to seven minutes for each interview, and five minutes afterwards for feedback and discussion by the observer and the two participants. Next have the twos become the interviewer, threes become the interviewee, and the ones the observer. Repeat the process. Then repeat again with the threes the interviewer, ones the interviewee, and twos the observer, so that each member of the group has played all three roles. If there are any groups of four have them shorten the interview time to five minutes maximum so they finish with the other groups. Allow about forty-five minutes for the whole process. Now reassamble in the larger group to discuss what people have learned.

Some questions to ask to reinforce the learning process:

1. What did you learn?
2. What kind of answers did you get to closed questions? Open questions?
3. How did they differ?
4. Did you use more open or closed questions? How did this effect the course of the interview?
5. Did you feel listened to when you were interviewed? Why or why not?

Exercise III: Paraphrasing and Summarizing

First read through and familiarize yourself with the participants' section of the manual on Communication Skills. Be prepared to give an oral presentation on the skill you are teaching before beginning the role-play exercises. Giving a role-play demonstration of the skill yourself before breaking the participants into small groups will help everyone gain a clear idea of what is expected of them. Use either another trainer or a participant volunteer to conduct the demonstration. You may wish to arrrange this beforehand to save time in choosing a subject for the interview.

Divide the class into groups of three. Have each group count off by three, i.e., 1. 2. 3,...so each person in each group is either a one, two, or three. If there are one or two extra people have them join an existing group. To start, the ones will be the interviewer, the twos will be the interviewee, and the threes will be an observer. Have each interviewer role play an interview using only paraphrasing and summarizing skills, and open and closed questions. The situations may be a teacher talking to a troubled student, a real interview to get to know the interviewee better or help him/her solve a current problem, or any other situation of the interviewee's choosing. Allow five to seven minutes for each interview, and five minutes afterwards for feedback and discussion by the observer and the two participants. Then have the twos become the interviewer, threes become the interviewee, and the ones the observer, so that each member of the group has played all three roles. If there are any groups or four have them shorten the interview time to five minutes maximum so they finish with the other groups. Allow no more than forty-five minutes for the whole process. Now reassemble in the larger group to discuss what people have learned.

Some questions to ask to reinforce the learning process:

1. Did you find it difficult to use this technique?
2. Did you find yourself listening more closely?
3. When you were interviewed, did you feel what you had to say was understood?
4. What kinds of responses did you get to your paraphrases and summaries?

Description of Feelings Worksheet

This unit is self-explanatory for the participants. As the trainer your function will be to read the instructions with the group, and then act as facilitator for the discussion of each item. This exercise is an effective way of getting the participants to discuss their own feelings, which will be necessary in the following exercise on reflection of feelings. Make sure all participants have read the material in the participants' manual on Ownership of Feelings/ Reflection of Feelings, or give an oral presentation yourself of these ideas.

Exercise IV: Reflection of Feelings

First read through and familiarize yourself with the participants' section of the manual on Communication Skills. Be prepared to give an oral presentation on the skill you are teaching before beginning the role-play exercises. Giving a role-play demonstration of the skill yourself before breaking the participants into groups will help everyone gain a clear idea of what is expected of them. Use either another trainer or a participant volunteer to conduct the demonstration. You may wish to arrange this beforehand to save time in choosing a subject for the interview.

Divide the class into groups of three. Have each group count off by three, i.e., 1, 2, 3, ...so that each person in each group is either a one, two, or three. If there are one or two extra people have them join an existing group. To start, the ones will be the interviewer, the twos will be the interviewee, and the threes will be an observer. Have each interviewer role-play an interview using good listening skills and focusing primarily on reflection of feeling. The situations may be a teacher talking to a troubled student, a real interview to get to know the interviewee better or help him/her solve a current problem, or any other situation of the interviewee's choosing. Allow five to seven minutes for each interview, and five minutes afterwards for feedback and discussion by the observer and the two participants. Next have the twos

6

become the interviewer, threes become the interviewee, and ones the observer. Repeat the process. Then repeat again with threes the interviewer, ones the interviewee, and twos the observer, so that each member of the group has played all three roles. If there are any groups of four have them shorten the interview time to five minutes maximum so they finish with the other groups. Allow no more than forty-five minutes for the whole process. Now reassemble in the larger group to discuss what people have learned.

Some questions to ask to reinforce the learning process:

1. How many reflection of feeling statements did you make?
2. Did you keep the focus of the conversation of the interviewee?
3. Was it difficult for you personally to talk about your feelings?
4. Were you able to correctly sense how the person you interviewed was feeling?

THE LANGUAGE OF ENCOURAGEMENT

The Goals of Misbehavior: Case Studies

In order to assist the faculty members in acquiring some facility in recognizing the different goals of misbehavior, a number of case studies have been included. It is recommended that if used in an inservice training, the group be broken down into smaller groups of four or five people. Have each group read the first case study and then discuss what they feel is the appropriate goal of misbehavior for the individual portrayed. Then have the trainer solicit from each group the goal that they have chosen and the reasons that they feel that goal is appropriate. Any conflicts, disagreements, or problems can be discussed at this point. Then go on to the next case study. Allow each group an opportunity to come up with their answer and again discuss the answers from each group in the larger group as a whole. A discussion of each case study is included which emphasizes the main points to be made.

Janet

The goal of Janet's misbehavior is attention-getting. Because of her parent's extreme concern about her progress in school she has found that she can get the extra attention she needs by using school and her extra efforts at school to call attention to herself. She gets a lot of extra attention from her teacher by asking, for instance, that directions be repeated, by asking for extra work and make-up work, and by doing extra assignments. Attention getting behavior can often take this so-called positive form as well as the negative form that we would be more accustomed to seeing. The fact that her attention-getting behavior has taken a more acceptable character does not mean that she is any less discouraged than would otherwise be the case. Janet has found that she can not only get extra attention from her teacher but by creating such a problem for herself in school she also gets the extra attention from her parents that she feels she needs.

Donald

The goal of Donald's misbehavior is a combination of attention-getting mechanisms and power struggle with the teacher. The fact that after his Woody Woodpecker yells, Donald usually stops when the teacher reprimands him indicates that that is primarily an attention-getting device. However, the fact that he does challenge the teacher on occasion and the fact that he refuses to serve detentions when they have been assigned to him indicates that he is moving into a position of a power struggle with the teacher. Because of his father's lack of interest in his academic progress Donald seems to feel justified in challenging his teacher and believes himself that he can do what he wants and the teacher is not in a position to be able to tell him what to do.

Steven

The goal of Steven's misbehavior is assumed disability or isolation. Steven has decided that because of the sense of isolation and differentness that he feels because of his severe poverty, there is really no point in trying any further to succeed in a school setting. Consequently, Stevie has withdrawn. The usual motivation for a student in this position is that if they do try they will only fail and rather than have to suffer the continuing humiliation of failing over and over again, it's easier to refuse to participate from the very beginning. The student is extremely deficient in self-confidence and self- esteem.

Kevin

Kevin seems to have a dual goal in his misbehavior. In relationship with his teacher, he is engaging in a power struggle. He asserts that she can't make him do anything and refuses to serve the detentions that she assigns to him. The fact that his mother works in the school in the principal's office is very significant although his behavior has not deteriorated to the point where we would say revenge is his motivation with his teacher. It seems fairly clear that because of the exasperation that his mother is feeling at having her son misbehave in the school setting, his motivation with regards to her is revenge. He isn't really interested in hurting his teachers; only in showing them that they can't really control him. But he does seem to want to hurt his mother and embarrass her in her professional position.

Earl

The goal for Earl's misbehavior is revenge against his teachers. The fact that when corrected by the vice-principal he moves into retaliation by letting the air out of his tires and the fact that his relations with his peer group have also deteriorated to the point where other people don't want to be with him are both strong indications that revenge is his motivation. The teacher feels guilty because of her active dislike of Earl and these feelings of guilt and the wish that she didn't have to deal with him any longer are usually strong indicators that the goal of that student's behavior is revenge. It's quite common to wonder how a kid could be so mean when revenge is the goal for their misbehavior.

Ray

The goal of Ray's misbehavior is power. The fact that the teacher is feeling defeated and wondering who is in control are strong indicators that power is indeed the motivation here. Ray is not only refusing to do his own work, but is now actively encouraging other students not to cooperate with the teacher. This is a direct challenge to the teacher and Ray is testing his power and his determination against that of the teacher.

Ken

The goal of Ken's misbehavior is power. Many of the techniques he's using seem to be attention-getting mechanisms but the fact that he persists in these annoying behaviors and refuses on occasion to accept correction from the teacher indicates that he has moved into a power struggle or a position of confrontation with the shop teacher. Again the primary indications that this is a power struggle is the fact that he will not accept correction, the teacher is feeling challenged and that even after correction, Ken continues to persist in his misbehavior.

Encouragement Worksheet- Explanation

In using the encouragement worksheet as part of an inservice training effort, it is recommended that the entire group be given about 20 minutes to do the worksheet on their own. After everyone has had an opportunity to complete the worksheet, go through the sentences one at a time perhaps going around the room in rotation so that each person has an opportunity to answer at least one question. After the answer is given, solicit comments from other people as to whether they agree or disagree with the answer that has been offered. If there is disagreement in the group as to the correct answer to a given question, the following remarks may be useful in pointing out what the recommended approach would be:

1. Discouraging; the statement implies a lack of belief in the student on the part of the teacher and suggests that the performance they've given would be difficult for them to duplicate on another occasion.

2. Discouraging; again, this implies the teacher's lack of belief in the student and would tend to discourage them in their progress.

3. Encouraging; although the student may have gotten eight right out of a possible 20, and indeed may be flunking this test, the important point here is that the teacher is focusing on progress and improvement. If the student is to be encouraged, this feeling of growth and progress is essential.

4. Discouraging; again, the teacher is expressing his lack of faith in the student's ability.

5. Encouraging; the teacher is showing his belief in the student's abilities.

6. Encouraging; rather than saying "Don't hold the book so close to your face," the teacher is making a suggestion and leaving the decision up to the student. Whenever possible, students should be offered a choice. For many discouraged students, any direct order invites confrontation.

9

7. Encouraging; this may be a humorous situation and the reason the art supplies may be in order is because nobody ever uses them but by focusing on the positive aspect of this situation, the teacher can be assured that his/her approach is encouraging to his/her students.

8. Discouraging; this is an example of the old "yes,but". If a compliment is paid on the one hand, and a criticism is made at the same time, students tend to hear only the criticism. The teacher should say your multiplication is improving and save the criticism about the neatness of the paper for a later time.

9. Discouraging; the teacher is predicting the future and although at first glance it may seem to suggest faith in her students' ability, the ultimate effect in predicting the future for a student or indeed anyone is to limit their possibilities and put them under an extra amount of pressure to measure up to someone else's expectations.

10. Discouraging; the teacher is saying that the student is over-estimating her abilities and will probably not be able to succeed.

11. Encouraging; the point here is that in paying the student a compliment, the teacher is avoiding making value judgements such as "You are a good boy" or "I really like you for helping me out." Instead, the teacher focuses on the value of the work that is done and consequently is encouraging her student's sense of accomplishment and enhancing his/her self-respect.

12. Encouraging; the teacher is displaying confidence and faith in her student's abilities as well as emphasizing progress that the student is making.

13. Discouraging; this is a negative comparison and serves to chip away at the student's sense of self-esteem.

14. Encouraging; the teacher is paying an encouraging compliment to the student and reaffirming their ability to carry out assigned tasks.

15. Encouraging; again, this sounds like a positive restatement of what may potentially be a negative situation. The student in question may do a fine job of bringing everything to class but do absolutely nothing with their materials once they've brought them there. In picking out the positive aspects in a potentially negative situation the teacher is forming an alliance with the student.

10

16. Discouraging; the teacher is conveying an attitude of surprise that the student is finished and obviously doesn't expect that kind of behavior from the student consistently.

17. Encouraging; both teachers and students are destined to make mistakes. If the teacher can focus on mistakes as being a part of a learning process and as such use it as an opportunity to further the student's education the ultimate results of making mistakes will not be discouraging.

18. Encouraging; the teacher is showing his/her faith and offering his/her support and assistance to the student.

19. Discouraging; the teacher is making a disparaging comment about the student even though the statement is thinly cloaked in the guise of a compliment.

20. Encouraging; the teacher is indicating to the student her faith in her ability to handle her own problems and is demonstrating confidence in the student's ability.

In all of the above sentences the ultimate test in whether the teacher has been encouraging or not is in the reaction of the student. Not only the words that are used but the attitude, emphasis, and intention behind the words can totally change the meaning for the student who is hearing them. Encouraging a discouraged student is a process, and depending on the degree of discouragement, the student has displayed, it may take a relatively long time for the teacher to be able to effect a reversal in the student's pattern of behavior. In engaging in this kind of a process, the teacher himself/herself must take care that he/she does not become discouraged. Often times, the only person who is willing to demonstrate any faith or respect or trust for the student will be the teacher. Other aspects or other important people in the students life may just continually feed into the discouagement process. It is therefore necessary for the encouraging teacher to realize that even persistent, well-intentioned, appropriate forms of encouragement may take a long time to have their effect on a seriously discuuraged student.

Section Four-Resources

by Kathleen Winkler

LEARNERS WITH HEARING IMPAIRMENTS

Books, Handbooks, Pamphlets, Articles

Austin, Gary. "Model to Facilitate Secondary and Vocational Education Services to the Hearing Impaired Student." Unpublished manuscript. Northern Illinois University, August 1973.

Alexander Graham Bell Association for the Deaf. "The Hearing Impaired Child in a Regular Classroom: Preschool, Elementary and Secondary Years; A Guide for the Classroom Teacher and Administrator," 1974.

Calvert, Donald R. Speech and Deafness: A Text for Learning and Teaching. Graham Bell Association for the Dear.

"This Child Has Been Framed" - Understanding Deafness. Quota International, Inc., 1145 19th Street, N.W., Washington, D.C. 20036.

Dale, D.M. Deaf Children at Home and at School. Springfield, Illinois: Charles C. Thomas Publishers.

Guide to College/Career Program for Deaf Students, Washington, D.C.: Gallaudet College and the National Technical Institute for the Deaf (NTID). Gallaudet College

Human Resources Center, Exploratory and Evaluative Research in the Vocational Adjustment of the Handicapped. Albertson, NY, 1970.

Hartmann, Arthur. Deaf mutism and the Education of Deaf mutes by Lip-Reading. Gordon Press New York, N.Y.

Guidelines for Identifying, Classifying, and Serving the Disadvantaged and Handicapped under the Vocational Education Amendments of 1968. Revised Edition: Suggested Utilization of Resources and Guides for Expenditures. Washington, D.C.: U.S. Department of Helath, Education, andWelfare, June 1972.

Katz, Lee. The Deaf Child in the Public Schools: A Handbook for Parents of Deaf Children. Interstate, 1974.

Leshui, George. Speech for the Hearing Impaired Child. View of Arizona Press, Tuscon A2. 1975.

Nix, Gary W. Mainstreaming Education for Hearing Impaired Children and Youth. Grune and Stratton, 1976.

Northcott, Winifred., and Alexander Graham Bell. Hearing Impaired Child in a Regular Classroom Preschool, Elementary and Secondary Years. Washington D.C. 1973.

Northwest Illinois Association for Hearing, Vision, and Physically Handicapped Children. A Continuum Study for the Development of Comprehensive Services for Children with Hearing, Vision, and Orthopedic Health Impairments in Northwest Illinois. DeKalb, IL 1972.

Rozamund, Fred and Donald, David W. A Step Forward: Secondary Interagency Work Experience Programs. Office of the Superintendent of Public Instruction, Springfield, Illinois, n.d.

Suttles. Educators Guide to Free Teaching Aids. Randolph, Wisconsin, Educators Progress Service.

Towne, Douglas C. and Wallace, Sydney. Vocational Instructional Materials for Students with Special Needs. Portland, Oregon, Northwest Regional Educational Laboratory, 1972. (Available from: Douglas Towne, Special Needs Project, Northwest Regional Educational Laboratory, 710 S.W. Second Avenue, Portland, Oregon 97204.)

Films

Holding the Reins Deafness - S.Sp: Exceptional - C.SP. John Tracy Clinic 1962.

Julia Education - Study and Teaching - C.G. Exceptional Children -C.G. Hearing C.G. University of Mo., Holt, Rinehart & Winston)n.d.

Stepping Stones Deafness - C.SP: Exceptional Children -C.SP. John Tracy Clinic 1963

They Do Not Walk Alone Deafness - C.SP: Exceptional Children -C.SP.

Why Wait? Exceptional Children - Education- C.SP. Physically handicapped -C.SP.

Agencies and Organizations

The following is a list of national and state agencies/organizations servicing this group of learners. Contact the state or federal office for the regional and/or area offices:

Adult Rehabilitation Services
1176 River St.
Hyde Park, MA 02136

Alexander Graham Bell Association for the Deaf
3417 Volta Place, N.W.
Washington, D.C. 20007

American Speech and Hearing Association
9030 Old Georgetown Road
Bethesda, Maryland, 20014

Boston Guild for the Hard of Hearing
283 Commonwealth Avenue
Boston, MA 02115

Brookline Multi-Service Centers
61 Park St.
Brookline, MA 02146

Career Aids, Inc.
8950 Lurlene Ave, Dept V72
Chatsworth, Calif 91311

Columbia University
Research and Demonstration Center
for Education of Handicapped Children
and Youth
525 West 120th St.
New York, New York 10027

Convention of American Instructors of
the Deaf
5034 Wisconsin Avenue N.W.
Washington, D.C. 20016

The Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Federation for Children with Special Needs
Suite 338
120 Boylston St.
Boston, MA

James Bonk Publishers
3531 Investment Blvd, Suite 57
Haywood, California 95454

Junior National Association for the Deaf
Gallandet College
Florida Avenue at 7th St. N.E
Washington, D.C. 20002

University of Kansas
Special Education Instructional Materials Center
Hodder Hall
Lawrence, Kansas 66044

University of Kentucky
Regional Special Education Instructional
Materials Center
730 South Limestone Street
Lexington, Kentucky 40506

Mafex Associates Inc.
90 Cherry St. Box 519
Johnstown, Pennsylvania 15907

Maimonidas Institute for Exceptional Children
34-01 Mott Avenue
Far Rockaway, New York 11691

Regional Instructional Materials Center
for Handicapped Children and Youth
213 Erickson Hall
East Lansing, Michigan 48823

University of Minnesota
Research and Development Center in Education
of Handicapped Children
Pattee Hall
Minneapolis, Minnesota 55455

National Association of the Deaf
814 Thayer Avenue,
Silver Springs, MD 20910

National Technical Institute for the Deaf
One Lamb Memorial Drive
Rochester, NY 14623

University of Northern Colorado
Rocky Mountain Special Education
Instructional Materials Center
Greeley, Colorado 80631

Ohio State School of the Deaf,
Academic Dept.
5007 Morse Road
Columbus, OH

Registry of Interpreters for the Deaf
P.O. Box 1339
Washington, D.C. 20013

University of South Florida
Institute on Exceptional Children
and Adults
4202 Fowler Avenue
Tampa, Florida 33620

University of Texas
Special Education Instructional
Materials Center
304 West 15th Street
Austin, Texas 78701

United States Office of Education
Bureau of Occupational and Adult
Education
7th and D Streets, S.W.
Washington, D.C. 20202

United States Office of Education
Bureau of Occupational and Adult
Education
7th and D. Streets
Donahoe Bldg.
Washington, D.C. 20202

Vocational Guidance and Rehabilitation
Service
2239 East 55th St.
Cleveland, OH

Volta Bureau
3417 Volta Place, N.W.
Washington, D.C. 20007

LEARNERS WITH VISUAL IMPAIRMENTS

Books, Handbooks, Pamphlets, Articles

Allen, P. The Drama of Life. Physical changes of adolescence and information on dating. Available from the the Library of Congress, Division of the Blind and Physically Handicapped, Washington, D.C., 20542

Altfest, M., Hartley, N., and Rocco, P. Vocational Education for Students with Special Needs. Fort Collins: Colorado State University, 1975.

American Foundation for the Blind. Aids and Appliances. 18th edition. New York, 1973.

A Program Designed for the Visually Handicapped Homemaker. Public Service Company of Colorado, Home Service Department, 550 15th Street, Denver, Colorado 80202

A Step-by-Step Guide to Personal Management for Blind Persons. 2nd edition. American Foundation for the Blind, 15 W. 16th Street, New York 10011 1974.

Barnes, J. Starting from Scratch: A Guide to Home Decorating. Available from the Library of Congress, Division of the Blind and Physically Handicapped, Washington, D.C., 20542.

Better Homes and Gardens Junior Cook Book. Louisville, Kentucky: American Printing House for the Blind, Inc.

Betty Crocker's Talking Recipes. General Mills, Inc. 9200 Waygate Blvd., Minneapolis, Minnesota.

Calovini, Gloria. Mainstreaming the Visually Impaired Child. Instructional Materials Center, Office of the Superintendent of Public Instruction, 1020 South Spring Street, Springfield, IL 62706.

Career Activities for the Blind. Director of Programs for Exceptional Children, Santa Cruz County Schools Office, 701 Ocean Street, Santa Cruz, California. 95060.

Salmon, F. Cuthbert, and Christin F. The Blind, Space Needs for Rehabilitation. Oklahoma State University, Stillwater, Oklahoma, 1964.

Dale, Vera and Uhlinger, Susan. Resources in H.E. For Blind Homemakers. Supplement by Dr. Frances Smith; Resources in Home Econimics for Blind Homemakers, Dept. WD, Massachusetts Association for the Blind, 200 Ivy Street, Brookline, MA 02146

Exploratory and Evaluative Research in the Vocational Adjustment of the Handicapped Albertson, NY, 1970.

Facts about Blindness. New York: American Foundation for the Blind, Inc.

Frank, A. Babies by Choice or Chance. Library of Congress, Division for the Blind and the Physically Handicapped, Washington, D.C. 20542.

Free and Inexpensive Learning Materials. Nashville, Tennessee: George Peabody College for Teachers. Division of Surveys and Field Services.

Guidelines for Identifying, Classifying, and Serving the Disadvantaged and Handicapped under the Vocational Education Amendments of 1968. Revised Edition: Suggested Utilization of Resources and Guides for Expenditures. Washington, D.C.: U.S. Dept. of Health, Education, and Welfare, June, 1972.

Jones, S. Kitchen Trade Secrets. Philadelphia : Volunteers Service for the Blind, Braille.

Northwest Illinois Association for Hearing, Vision, and Physically Handicapped Children. A Continuum Study for the Development of Comprehensive Services for Children with Hearing, Vision, and Orthopedic Health Impairments in Northwest Illinois. DeKalb, IL, 1972.

Pre-primer Cooking or Cooking Techniques for the Blind. Orientation Center for the Blind, 400 Adams Street, Albany, California 94706.

Rozamund, Fred and Donald, David W. A Step Forward: Secondary Interagency Work Experience Programs. Office of the Superintendent of Public Instruction, Springfield, Illinois, n.d.

Seeing to the Needs of Florida's Blind. Tallahassee, Florida: Florida Bureau of Blind Services, Division of Vocational Rehabilitation, Dept. of Health and Rehabilitation Services.

Social Graces. Changing Times. Available from the Library of Congress, Division of the Blind and Physically Handicapped, Washington, D.C., 20542

Suttles. Educators Guide to Free Teaching Aids. Randolph, Wisconsin, Educators Service

Talking Books Dept., 814 W. 3rd Avenue, Columbus, Ohio 43212.

Techniques for Eating; A Guide for Blind Persons. Western Michigan University School of Graduate Studies, Kalamazoo, Michigan 49001.

Towne, Douglas C. and Wallace, Sydney. Vocational Instructional Materials for Students with Special Needs. Portland, Oregon, Northwest Regional Educational Laboratory, 710 S.W. Second Avenue, Portland, Oregon 97204

Aids and Appliances. (19th edition). American Foundation for the Blind, Inc., 15 W. 16th Street, New York, New York, 10011. 1973-74.

Science for the Blind. 221 Rock Hill Road, Bala-Cynwyd, Pennsylvania 19004.

Self Help Items for Independent Living. Fashion Able, Rocky Hill, New Jersey 08553.

Films

Society for Visual Education, 1345 Diversey Parkway, Chicago, Illinois 60614.

Achieving Success in the World of Jobs
Critical Areas of Health

Dating Problems of Young Teens
Department Store (Job Opportunity Series)
Family Problems of Young Teens
Hospital Helper
Learning to Use the Sewing Machine
Popularity Problems of Young Teens
Requirements in the World of Work
Restaurant
Safe Home - Safe Living
Supermarket
The Homes We Live In
The Intermediate Way Health Set
What Good is School?

Kevin. A close look at the world of a blind child underscoring the role of imagination and the enhancement of other senses.

The Perkins Story. Techniques for educating blind learners. K-12 as occurs in Perkins School for the Blind.

Miscellaneous Items

American Printing House for the Blind, 1938 Frankfort Avenue, Louisville, Kentucky 40206. (Subscription to leading magazines recorded on disc tape or in braille.)

Braille Control Knobs - G.E. Company, Range Dept. B, Dept. WD, Building 2, Room 210, Appliance Park, Louisville, Kentucky

Caloric Ranges - Caloric Corp., Consumer Relations Dept. WED, Tapton, Pennsylvania 19562.

Clothes Washers - Maytag Coded Controls and Speed Queen (control Panels in braille) and also for visually impaired, Speed Queen, Advertising Dept., Dept. WD 15 W. 16th St., New York 10011

G.E. and Hotpoint, Center for Consumer Products Recording, Associated Blind of Kentucky, Inc., Dept. WD, Box 306, Louisville, Kentucky 40201.

Home Eye Test for Pre-schoolers. National Society for the Prevention of Blindness, Inc. 70 Madison Avenue, New York, New York 10016.

Husqvarna. A special sewing machine for people with impaired vision.

Osterizer Blender Spin Cookery Cookbook - Oster Corp., Public Relations Dept., Dept. WD, 5055 N. Lydell Avenue, Milwaukee, Wisconsin 53217.

Radio and T.V. - G.E. (AC/DC G.E. Rechargeable Cassette Tape Recorder/Player). American Printing House for the Blind, Dept. WD, Box 6085, Louisville, Kentucky. 40206.

Stanwix House, Inc., 3020 Shartiers Avenue, Pittsburgh, Pennsylvania 15204. (Largeprint materials, literature, bibles, dictionaries, and textbooks.)

Agencies and Organizations

The following is a list of National and State agencies/organizations servicing this group of learners. Contact the state or federal office for the regional and/or area offices.

Adult Rehabilitation Services
1176 River St.
Hyde Park, MA 02136

American Foundation for the Blind, Inc.
15 W. 16th St.
New York, New York 10011

American Printing House for the Blind
1839 Frankfort Ave.
Louisville, Kentucky 40206

Boston Aid to the Blind
1980 Centre St.
West Roxbury, MA 02132

Boston Center for the Blind
147 S. Huntington Ave.
Boston, MA 02130

Braille Institute of American, Inc.
741 N. Vermont Ave.
Los Angelos, California 90029

Brookline Multi-Service Center
61 Park St.
Brookline, MA 02146

Bureau of Education for the Handicapped
Office of Education
7th and D. Street, S.W.
Washington, D.C. 20202

Career Aids, Inc.
8950 Lurlene Ave, Dept V72
Chatsworth, California 91311

Carroll Center for the Blind
770 Centre St.
Newton, MA 02158

Choice Magazine Listening
14 Maple St.
Port Washington, New York 11050

Clevernook Printing House for the Blind
7000 Hamilton Avenue
Cincinnati, Ohio 45231

Columbia University
Research and Demonstration Center for Education of Handicapped Children and Youth
525 West 120th St.
New York, New York 10027

Commission for the Blind
110 Fremont St.
Boston, MA 02108

The Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Dialogue Publications, Inc.
3100 Oak Park Ave.
Berwy, Illinois 60402

Division for the Blind and Physically Handicapped
Library of Congress
1291 Taylor St. N.W.
Washington, D.C. 20542

Federation for Children with Special Needs
Suite 3338
120 Boylston St.
Boston, MA

Hadley School for the Blind
700 Elm St.
Winnetka, Illinois 60093

Hope Center for the Blind and Visually Disabled
718 State St.
Springfield, MA 01109

Howe Press of Perkins School for the Blind
175 N. Beacon St.
Watertown, MA 02172

Library of Congress, Division for the Blind
1291 Taylor St., N.W.
Washington, D.C. 20542

Mafex Associates, Inc.
90 Cherry St., Box 519
Johnstown, Pennsylvania 15907

Maimonidas Institute for Exceptional Children
34-01 Hott Avenue
Far Rockaway, New York 11691

LEARNERS WITH SPEECH IMPAIRMENTS

Books, Handbooks, Pamphlets, Articles

Calvert, Donald R. & Deafness, Richard S. *Speech & Deafness.* Washington, D.C.: Alexander Graham Bell Association.

Exploratory and Evaluative Research in the Vocational Adjustment of the Handicapped. Human Resources Center, Albertson, New York, 1970.

Free and Inexpensive Learning Materials. Division of Surveys and Field Services, Nashville, Tennessee: George Peabody College for Teachers.

Freeman, Gerald G. *Speech & Language Services and the Classroom Teacher*. Council for Exceptional Children, Reston, Virginia.

Guidelines for Identifying, Classifying, and Serving the Disadvantaged and Handicapped under the Vocational Education Amendments of 1968. Revised Edition: Suggested Utilization of Resources and Guides for Expenditures. Washington, D.C.: U.S. Department of Health, Education, and Welfare, June 1972.

Johnson, Wendell *Speech Handicapped School Children*. New York: Harper & Row.

Ling, Daniel *Speech and the Hearing Impaired Child*, Theory & Practice. Washington, D.C.: Alexander Graham Bell, 1976.

Nadeau, Ray E. & Muchmore, John M. *Speech Communication a Career Education Approach*. 2nd. Edition. Ann Arbor, Michigan: A. W. M. Company, 1979.

Phillips, Phyllis P. *Speech & Hearing Problems in the Classroom*. Lincoln, Nebraska: Cliffs, 1975.

Mouton, H. Shands *Speech as Instruction*. New York: Hawthorne, 1977.

Sherman, Cynthia M. ed. *Speech & Language Disorders: Selected Readings*. New York, New York: Harper-Row, 1978.

Struckfield, Sara M. *Speech Disorders: A Psychological Study of the Various Defects of Speech*. Darby, Pennsylvania: Arden Library, 1978.

Suttles. *Educators Guide to Free Teaching Aids*. Randolph, Wisconsin: Educators Progress Service.

Towne, Douglas C. and Wallace, Sydney. *Vocational Instructional Materials for Students with Special Needs*. Portland, Oregon: Northwest Regional Educational Laboratory, 1972. (Available from: Douglas Towne, Special Needs Project, Northwest Regional Educational Laboratory, 710 S. W. Second Avenue, Portland, Oregon 97204.

Travis, Lee E. *Speech Pathology: A Dynamic Neurological Treatment of Normal Speech & Speech Deviations.* New York, New York: AMS Press., 1931.

Agencies and Organizations

The following is a list of national and state agencies/organizations servicing this group of learners. Contact the state or federal office for the regional and/or area offices:

Adult Rehabilitation Services
1176 River Street
Hyde Park, Massachusetts 02136

American Speech & Hearing Association
9030 Old Georgetown Road
Bethesda, Maryland 20014

Brookline Multi-Service Centers
61 Park Street
Brookline, Massachusetts 02146

Career Aids, Inc.
8950 Turbine Avenue, Dept. V 72
Chatsworth, California 91311

Columbia University
Research & Demonstration Center for
Education of Handicapped Children
and Youth
525 West 120th Street
New York, New York 10027

Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Federation for Children With Special
Needs
Suite 338, 120 Boylston Street
Boston, Massachusetts

Janus Book Publishers
3531 Investment Blvd., Suite 5M
Haywood, California 94545

University of Kansas
Special Education Instructional
Materials Center
Hodder Hall
Lawrence, Kansas 66044

University of Kentucky
Regional Special Education Instructional
Materials Center
730 South Limestone Street
Lexington, Kentucky 40506

Mafex Associates, Inc.
90 Cherry Street, Box 519
Johnstown, Pennsylvania 15907

Maimonidas Institute for Exceptional
Children
34-01 Hott Avenue
Far Rockaway, New York 11691

Regional Instructional Materials
Center for Handicapped Children
and Youth
213 Erickson Hall
East Lansing, Michigan 48823

University of Minnesota
Research & Development Center in
Education of Handicapped Children
Pattee Hall
Minneapolis, Minnesota 55455

University of Northern Colorado
Rocky Mountain Special Education
Instructional Materials Center
Greeley, Colorado 80631

University of South Florida
Institute on Exceptional Children &
Adults
4202 Fowler Avenue
Tampa, Florida 33620

LEARNERS WITH PHYSICAL HANDICAPS AND/OR CHRONIC ILLNESSES

Books, Handbooks, Pamphlets, Articles

Assistive Devices for the Handicapped. Minneapolis: American Rehabilitation Foundation, Kenny Rehabilitation Institute.

Barriers to the Handicapped. Journal of the American Medical Association, April 20, 1970, p. 212.

Bleck, Eugene E., M.D.; and Negal, Donald A., M.D. Physically Handicapped Children: A Medical Atlas for Teachers. Gruen and Stratten, 1975.

Chasin, J. and Saltman, J. The Wheelchair in the Kitchen. Paralyzed Veterans of America, Inc., 7315 Wisconsin Avenue, Washington, D.C.

Committee for the Handicapped, People-to-People Program. Directory of Organizations Interested in the Handicapped (1146 16th Street, N.W., Washington, D.C. 20036).

Crippled Child, The. Chicago: National Society for Crippled Children and Adults, 2023 W. Ogden, 80612.

Human Resources Center, Exploratory and Evaluative Research in the Vocational Adjustment of the Handicapped. Albertson, New York, 1970.

Division of Surveys and Field Services. Free and Inexpensive Learning Materials. Nashville, Tennessee: George Peabody College for Teachers.

Goldsmith, Selwyn. Designing for the Disabled. 2nd ed., New York: McGraw-Hill, 1967.

Guidelines for Identifying, Classifying, and Serving the Disadvantaged and Handicapped under the Vocational Education Amendments of 1968. Revised Edition: Suggested Utilization of Resources and Guides for Expenditures. Washington, D.C.: U.S. Department of Health, Education, and Welfare, June 1972.

Homemaking Aids for the Disabled. Minneapolis, Minnesota: American Rehabilitation Foundation, Kenney Rehabilitation Institute, #710.

Household Hints for the Handicapped Homemaker. Pittsburgh, Pennsylvania: Harmarville Rehabilitation Center.

Jeffrey, D. A Living Environment for the Physically Disabled. Chicago: National Easter Seal Society. (Reprint #A-238).

Kumar, V., Handicapped Persons in Wisconsin's Vocational, Technical, and Adult Education Districts: Assessment of Educational Techniques and Identification of Barriers. Madison: University of Wisconsin, Wisconsin Vocational Studies Center, 1977, 89 pp.

May, Elizabeth; Neva, E. R.; and Boettre, E. M. Homemaking for the Handicapped. New York: Doad & Mead, 1967.

McCollough, Helen E. and Farnham, Mary. Kitchens for Women in Wheelchairs. Circular 841. Urbana: University of Illinois, Extension Service in Agriculture and Home Economics, 1961.

Nemarich, S. P. and Velleman, R. A. Curriculum and Instructional Techniques for Physically Disabled Students. Human Resources Study Number 12, Albertson, New York, 1969.

Northwest Illinois Association for Hearing, Vision, and Physically Handicapped Children. A Continuum Study for the Development of Comprehensive Services for Children with Hearing, Vision, and Orthopedic Health Impairments in Northwest Illinois. DeKalb, Illinois, 1972.

Radick, Sharon. The Physically Handicapped Student in the Regular Home Economics Classroom: A Guide for Teaching Nutrition and Foods. Danville: Illinois: The Interstate Printers and Publishers, Inc.

Rozamund, Fred and Donald, David W. A Step Forward: Secondary Interagency Work Experience Programs. Office of the Superintendent of Public Instruction, Springfield, Illinois, n.d.

Siegel, H. and Haug, E. "Skill Development for the Handicapped." Industrial Arts and Vocational Education, LIX (September 1970), 24.

Stein, Sara. About Handicaps. Walker and Company, 1974.

Suttles. Educators Guide to Free Teaching Aids. Randolph, Wisconsin: Educators Progress Service.

Szoke, Claire O. and Vest, Sharon. To Serve Those Who are Handicapped: Procedures and Format to Implement a Model Career Education Program for the Handicapped. Revised edition. Champaign and Springfield, Illinois: Technical Education Research Centers/Midwest and Springfield Public Schools, 1975.

Taylor, R.; Thomason, Dean; and Thomason, Bruce, eds. Vocational Education and Rehabilitation of the Disabled and Disadvantaged. Proceedings of a Regional Training Conference, University of Florida, Gainesville, 1970.

Towne, Douglas C. and Wallace, Sydney. Vocational Instructional Materials for Students with Special Needs. Portland Oregon, Northwest Regional Educational Laboratory, 1972.

Unfinished Revolution: Education for the Handicapped. National Advisory Council for the Handicapped. Washington, D.C.: U.S. Government Printing Office, 1976.

Wolf, B. Don't Feel Sorry for Paul. Lippincott, 1974.

Working with the Handicapped in the Vocational Home Economics Classroom. Columbus: Ohio State Department of Education, 1979, 1-3.

Yuker, Harold E. and others. Educational and School Equipment for Physically Disabled Students. Human Resources Study Number 9. Albertson, New York, 1967.

Catalogs

Cleo Living Aids Catalog, 3957 Mayfield Road, Cleveland, Ohio 44121.

Fred Sammons. "Be O.K." *Self-Help Aids Catalog*, Box 32, Brookfield, Illinois 60513.

J. A. Preston Corporation Catalog, 71 Fifth Avenue, New York, New York 10003.

Rehabilitation Equipment, Inc. Catalog, 175 E. 83rd Street, New York, New York 10003.

Scully Walton Catalog, 505 E. 116th Street, New York, New York 10029.

Shalik's Rehabilitation Aids Catalog, Box 612, Tamiami Station, Miami, Florida 33144.

Trujillo Industries Catalog, Box 217, San Clemente, California 92672.

Velcro Products Catalog, 160 Gilbert Street, Fullerton, California 92633.

Films

Interpretative Education, Division of Illinois Envelope Co., 400 Bryant Street, Kalamazoo, Michigan 49001, 1973:

Different Ways to Prepare Potatoes Using One Hand--9 min., b&w. silent).

Everything in Its Place (10 min., b&w, sound).

Functional Clothing (15 min., b&w, sound).

Good Food in Less Time (8 min., b&w, sound).

I Want to Dress Myself (6 min., b&w, sound).

Storage That Works for You (20 min., b&w, sound).

This Kitchen Says Please Be Seated (9 min., color, silent).

Time on Your Hands? (21 min., b&w, sound).

Governor's Committee on Employment of the Handicapped from the President's Committee on Employment of the Handicapped. Washington, D.C. 20420

Architectural Barriers.

Sound the Trumpets--22 min.

National Medical Audio-Visual Center (Annex). Station K, Atlanta, Georgia 30324.

Research and the Handicapped Homemaker--43 min., #M-2239-K.

The Homemaker with Arthritis--20 min.

The Homemaker with Incoordination--28 min., c, sound.

The Homemaker with the Use of One Hand--28 min.

School of Home Economics, University of Connecticut, Stoors, Connecticut.

An Approach to Work Simplification for Handicapped Homemakers--18 min., 16 mm., c, sound.

Principles of Motion Economy Illustrated by Handicapped Homemakers--18 min., 16 mm., c, sound.

The Crippled Child (C1986) 29 min., b&w--Indiana University, Syracuse University, 1957. Covers the problems of the crippled child and examines the social and physical needs of the child. Shows ways of physical and occupational therapists and counseling for parents.

Find A Way (CC3387) 26 min., c--National Film Board of Canada, Media Guild, 1977. About how a young girl who is crippled from birth deals with life and how she makes clear that she wants to be treated as an ordinary person. Shows how high a human spirit can soar, no matter how burdened the body may be.

Agencies and Organizations

The following is a list of national and state agencies/organizations servicing this group of learners. Contact the state or federal office for the regional and/or area offices.

The Arthritis Foundation
1212 Avenue of the Americas
New York, New York 10036

Center for Independent Living
2539 Telegraph Avenue
Berkeley, California 94704

Library of Congress
Reference and Information Section
Division for the Physically Handicapped
Washington, D.C. 20542

Mainstream, Inc.
1156 15th Street, NW
Washington, D.C. 20005

National Center for Barrier-Free Environment
7315 Wisconsin Avenue, NW
Washington, D.C. 20014

National Easter Seal Society for Crippled Children and Adults
2023 Ogden Avenue
Chicago, Illinois 60612

National Institute for Rehabilitation Engineering
Pompton Lakes, New Jersey 07442

Sister Kenny Institute
1800 Chicago Avenue
Minneapolis, Minnesota 55404

United Cerebral Palsy Association, Inc.
321 West 44 Street
New York, New York 10036

United Epilepsy Association, Inc.
111 West 57th Street
New York, New York 10019

Vocational Rehabilitation Administration
Department of Health, Education, and Welfare
Washington, D.C. 20201

LEARNERS WITH MENTAL IMPAIRMENTS

Books, Handbooks, Pamphlets, Articles

Altfest, M., Hartley, N. and Rocco, P. *Vocational Education for Students with Special Needs.* Fort Collins: Colorado State University, 1975.

American Journal of Mental Deficiency. Willimantic, Connecticut: P.O. Box 96.

Berenson, B. *Environmental Design for Mental Retardation*, Washington, D.C.: U.S. Department of Public Health

Birch, Jack. *Mainstreaming: Educable Mentally Retarded Children in Regular Classes*.

Brennan, Thomas J. "The Slow Learner in Industrial Arts." *New Concepts in Industrial Arts*. Selected Addresses and Proceedings of the American Industrial Arts Association's 30th Annual Convention at Minneapolis, Minnesota. Washington D.C.: The American Industrial Arts Association, November 1968.

Brice, G.R. "Vocational Programming for the Retarded." *American Vocational Journal*, XXXXI (May 1976), 23-26.

Brolin, D.E. *Vocational Preparation of Related Citizens*. Columbus, Ohio: Merrill, 1976, 312 pp.

Buffer, James J. *"Instructional Practices for the Mentally Retarded." Man/Society Technology*, XXXI (December 1971) 82-87.

Buffer, James J. and Pfeifer, Edward J. "Found: New Industrial Laboratory Experience for Retarded." *Industrial Arts and Vocational Education,* LIX (January 1970), 64-65.

Cole. *Units of the Curriculum for the Senior High School Retarded*. Syracuse, New York: Board of Education.

DiMichael, Salvatore G., ed. *New Vocational Pathways for the Mentally Retarded*. Washington, D.C., 1966.

Dybwad, Gunnal J. D. *Planning Facilities for Severely and Profoundly Retarded Adults*. Reprint from Hospital and Community Psychiatry, available from National Association for Retarded Children (2709 Ave., E. East, Arlington, Texas 76011).

Exploratory and Evaluative Research in the Vocational Adjustment of the Handicapped. Albertson, New York: Human Resources Center.

Fraenkel, William A. *The Mentally Retarded and Their Vocational Rehabilitation--A Resource Handbook.* New York: National Association for Retarded Children, Inc., 1961.

Free and Inexpensive Learning Materials. Nashville, Tennessee: Division of Surveys and Field Services, George Peabody College for Teachers.

Freels, Mervyn D. "Teaching the Industrial Arts to the Educable Mentally Handicapped." Unpublished M.A. thesis, Northeast Missouri State Teachers College, 1967.

Gill, R. C. "Individualizing the Curriculum for Educable Mentally Retarded High School Students Through Pre-Vocational Evaluation." Education and Training of the Mentally Retarded, 1968.

Guidelines for Identifying, Classifying, and Serving the Disadvantaged and Handicapped under the Vocational Education Amendments of 1968. Revised Edition: Suggested Utilization of Resources and Guides for Expenditures. Washington, D.C.: U.S. Department of Health, Education, and Welfare, June 1972.

Horn, F. and Jones, J.: Instructional Materials for Use by Home Economics Teachers with Educable Mentally Retarded Students. University of Wisconsin, Madison, Wisconsin, 53702, 1974.

Hutt, Max L. and Gibby, Robert G. The Mentally Retarded Child: Development, Education and Treatment, Third Edition. Boston: Allyn & Bacon, 1976.

"Islands of Excellence" (MR72) and "The Goal is Freedom" (MR73). Washington, D.C.: Presdient's Committee on Mental Retardation.

Kahn, Ellen House. Cooking Activities for the Retarded Child. Nashville.

Kolstoe, Oliver P. Teaching Educable Mentally Retarded Children. Holt, Rinehart and Winston, 1976.

Kramer, J. "Work Adjustment Training and Evaluation for Teenage Retardates." Occupational Therapy for the Multiple Handicapped Child. Proceedings of the Conference on Occupational Therapy for the Multiple Handicapped Child. Chicago: University of Illinois, 1965.

Long, Kate. Johnny's Such a Bright Boy, What a Shame He's Retarded. Houghton, Mifflin, 1977.

McKay, Shirley E. The Slow Learner in Homemaking Classes in Junior and Senior High Schools. New Brunswick: State of New Jersey, Department of Education, Division of Vocational Education.

Mental Retardation. Washington, D.C.: U.S. Department of Health, Education and Welfare, U.S. Government Printing Office.

Missouri State Department of Education. Special Education Guide for Teachers of Educable Mentally Retarded. Missouri: Jefferson City.

National Association for Retarded Citizens, OJT Information, Arlington, Texas.

Nelson, Hilding E. "Slow Learners: A Challenge for Industrial Arts Education." American Vocational Journal, XXXIX (October 1964) 30-31.

New Jersey State Department of Education, Division of Vocational Education. Introduction to Vocations for Educable Mentally Retarded. Trenton, New Jersey, 1974.

Patterson, C.H. "Methods of Assessing the Vocational Adjustment of the Mentally Handicapped." The Training School Bulletin, November 1964.

Raybourn, James W. "Industrial Arts for Educable Mentally Retarded Students." Journal of Secondary Education, XXXXV, (January 1970) 24-26.

Rozamund, Fred and Donald, David. W. A Step Forward: Secondary Interagency Work Experience Programs. Office of the Superintendent of Public Instruction, Springfield, Illinois, n.d.

The Slow Learner Workshop. West Nyack, New York: Parker Publishing Company, Inc.

Smith, R. M. and Tisdall, W. J. "Working with the Retarded Pupil in Industrial Arts and Vocational Education." School Shop, XXIV (April 1965) 58-59, 114.

Soap and Detergent Association. Housekeeping Directions: A Simplified Guide, New York, 1974.

Suttles. Educators Guide to Free Teaching Aids, Randolph, Wisconsin: Educators Progress Service.

Teaching Exceptional Children, Reston, Virginia: Council for Exceptional Children (Published Quarterly).

Tisdall, William J. "Industrial Education and the Mentally Retarded." The Education Digest, XXIX (May 1964), 42-44.

Towne, Douglas C. and Wallace, Sydney. Vocational Instructional Materials for Students with Special Needs. Portland, Oregon: Northwest Regional Educational Laboratory, 1972. (Available from: Douglas Towne, Special Needs Project, Northwest Regional Educational Laboratory, 710 S.W. Second Avenue, Portland, Oregon 97204).

Viggiani, J.C. "Industrial Arts for Exceptional Children." School Shop, XXIV (March 1965), 21, 42.

Watson, Marjorie. Mainstreaming the Educable Mentally Retarded. Washington, D.C.: NEA, 1975.

Working with the Handicapped in the Vocational Home Economics Classroom. Columbus: Ohio State Department of Education, 1979, 1-3.

Catalogs

American Guidance Services, Inc., Publisher's Building, Circle Pines, Minnesota 55014.

Educational Activities, P.O. Box 3821, Freeport, New York 11520.

Eye Gate House, 146-01 Archer Avenue, Jamaica, New York.

Follett Instructional Materials, 1010 W. Washington, Blvd., Chicago, Illinois.

Ideal School Supply Company (Special Education), Oaklawn, Illinois 60452.

Matex Association, Inc., 111 Barrow Avenue, Johnstown, Pennsylvania 15907.

Money Management Institute, Household Finance Corporation, Prudential Plaza, Chicago, Illinois.

Films

Give Them a Chance (A2321), b&w--Pennsylvania State University, 1957. Depicts teaching techniques for a group of learners with mental ages of seven to thirteen and chronological ages of three to seventy-nine.

March of Dimes. The National Foundation, Box 2000, White Plains, New York 10602 (or contact local chapter).

Mental Health Film Library Division of Mental Health, 1210 State Office Building, 65 South Front Street, Columbus, Ohio 43215.

They Call Me Names (BC8070) 22 min, c--Educational Films for the Exceptional, BFA, 1972. Portrays the lives of mentally different young people and explores how they perceive a world in which they are often labelled retarded. Discusses the failures of the educational system to accommodate these individuals properly and includes comments by the children about how they react to unkind comments.

Agencies and Organizations

The following is a list of national and state agencies/organizations servicing this group of learners. Contact the state or federal office for the regional and/or area offices:

Adult Rehabilitation Services
1176 River Street
Hyde Park, Massachusetts 02136

Association for the Help of
Retarded Children, Inc.
420 Lexington Avenue
New York, New York 10017

American Association on Mental
Deficiency
5201 Connecticut Avenue, NW
Washington, D.C. 20015

Association for Mentally Ill
Children
120 Boylston Street--Suite 338
Boston, Massachusetts 02116

American Psychological Association
1200 17th Street, NW
Washington, D.C. 20036

Arizona State University
I.D. Payne Research Laboratory
Tempe, Arizona 85201

Brookline Association for Mental
Health, Inc.
43 Garrison Road
Brookline, Massachusetts 02146

Brookline Multi-Service Centers
61 Park Street
Brookline, Massachusetts 02146

Career Aids, Inc.
8950 Turbine Avenue, Dept. V 72
Chatsworth, California 91311

Central Middlesex Association
for Retarded Citizens Workshop, Inc.
2 Sixth Road
Woburn, Massachusetts 01801

Columbia University
Research and Demonstration Center
for Education of Handicapped
Children and Youth
525 West 120th Street
New York, New York 10027

Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Federation of Children with Special
Needs
Suite 338
120 Boylston Street
Boston, Massachusetts

University of South Florida
Institute on Exceptional Children
and Adults
4202 Fowler Avenue
Tampa, Florida 33620

Janus Book Publishers
353 Investment Blvd., Suite 5M
Haywood, California 94545

University of Kansas
Special Education Instructional
Materials Center
Hodder Hall
Lawrence, Kansas 66044

Joseph P. Kennedy, Jr. Foundation
719 13th Street, NW, Suite 510
Washington, D.C. 20005

Mafex Associates, Inc.
90 Cherry Street, Box 519
Johnstown, Pennsylvania 15907

Maimonidas Institute for Exceptional
Children
34-01 Hott Avenue
Far Rockaway, New York 11691

Massachusetts Rehabilitation Commission
Statler Office Building
20 Providence Street
Boston, Massachusetts 02116

Regional Instructional Materials Center
for Handicapped Children and Youth
213 Erickson Hall
East Lansing, Michigan 48823

University of Minnesota
Research and Development Center in
Education of Handicapped Children
Pattee Hall
Minneapolis, Minnesota 55455

National Association for Brain Injured
Children
1617 E. 7th Street
Brooklyn, New York 11215

National Association for Retarded
Children
420 Lexington Avenue
New York, New York 10017

National Association for Retarded
Children
2709 Avenue E. East
P.O. Box 6109
Arlington, Texas 76011

National Association of Sheltered
Workshops and Homebound Programs
1522 K. Street, NW
Washington, D.C. 20005

President's Committee on Employment
of the Handicapped
1111 20th Street, NW
Washington, D.C. 20210

Somerville Mental Health Center
63 College Avenue
Somerville, Massachusetts 02144

South Norfolk County Association
for Retarded Citizens
175 Walpole Street
Norwood, Massachusetts 02062

Special Education IMC/RMC Network
Department of Special Education
933 High Street
Worthington, Ohio 43085

University of Texas
Special Education Instructional
Materials Center
304 West 15th Street
Austin, Texas 78701

United States Office of Education
Bureau of Education for Handicapped
400 Maryland Avenue, SW
Donahoe Building
Washington, D.C. 20202

United States Office of Education
Bureau of Occupational and Adult
Education
7th and D. Streets, SW
Washington, D.C. 20202

LEARNERS WITH EMOTIONAL PROBLEMS

Books, Handbooks, Pamphlets, Articles

Becker and Becker Associates, Inc. *Planning and Design Criteria: Facilities for Emotionally Disturbed Children*. Boston: Massachusetts Department of Mental Health, 1964.

Carone, Pasquale et al (eds) *Emotionally Troubled Employee: A Challenge to Industry*. Syracuse, New York: State University of New York Press, 1976.

Exploratory and Evaluative Research in the Vocational Adjustment of the Handicapped. Albertson, New York: Human Resources Center, 1970.

Free and Inexpensive Learning Materials. Nashville, Tennessee: Division of Surveys and Field Services, George Peabody College for Teachers.

Guidelines for Identifying, Classifying, and Serving the Disadvantaged and Handicapped under the Vocational Education Amendments of 1968. Revised Edition: Suggested Utilization of Resources and Guides for Expenditures. Washington, D.C.: U.S. Department of Health, Education, and Welfare, June 1972.

Hewett, Frank M. *The Emotionally Disturbed Child in the Classroom.* Boston: Allyn and Bacon, Inc., 1968.

Rhodes, William C. *Emotionally Disturbed Student and Guidance*, 1970.

Rhodes, William and Paul, James L. *Emotionally Disturbed and Deviant Children-New Views and Approaches*, 1978.

Rozamund, Fred and Donald, David W. *A Step Forward: Secondary Interagency Work Experience Programs*. Springfield, Illinois: Office of the Superintendent of Public Instruction, n.d.

Suttles. *Educators Guide to Free Teaching Aids*. Randolph, Wisconsin: Educators Progress Service.

Towne, Douglas C. and Wallace, Sydney. *Vocational Instructional Materials for Students with Special Needs*. Portland, Oregon, Northwest Regional Educational Laboratory, 1972. (Available from: Douglas Towne, Special Needs Project, Northwest Regional Educational Laboratory, 710 S.W. Second Avenue, Portland, Oregon 97204).

Agencies and Organizations

The following is a list of national and state agencies/organizations servicing this group of learners. Contact the state or federal office for the regional and/or area offices:

Adult Rehabilitation Services
1176 River Street
Hyde Park, Massachusetts 02136

Brookline Multi-Service Centers
61 Park Street
Brookline, Massachusetts 02146

Career Aids, Inc.
8950 Turbine Avenue, Dept. V72
Chatsworth, California 91311

Columbia University
Research and Demonstration Center for Education of Handicapped Children and Youth
525 West 120th Street
New York, New York 10027

Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Federation for Children with Special Needs
Suite 338, 120 Boylston Street
Boston, Massachusetts

Janus Book Publishers
3531 Investment Blvd. Suite 5M
Haywood, California 94545

University of Kansas
Special Education Instructional Materials Center
Hodder Hall
Lawrence, Kansas 66044

University of Kentucky
Regional Special Education Instructional Materials Center
730 South Limestone Street
Lexington, Kentucky 40506

Mafex Associates, Inc.
90 Cherry Street, Box 519
Johnstown, Pennsylvania 15907

Maimonidas Institute for Exceptional Children
34-01 Mott Avenue
Far Rockaway, New York 11691

Massachusetts Rehabilitation Commission
State Office Building
20 Providence Street
Boston, Massachusetts 02116

Regional Instructional Materials Center for Handicapped Children and Youth
213 Erickson Hall
East Lansing, Michigan 48823

University of Minnesota
Research and Development Center in Education of Handicapped Children
Pattee Hall
Minneapolis, Minnesota 55455

University of Northern Colorado
Rocky Mountain Special Education
Instructional Materials Center
Greeley, Colorado 80631

President's Committee on Employment of the Handicapped
1111 20th Street, N.W.
Washington, D.C. 20210

Sommerville Mental Health Center
63 College Avenue
Sommerville, Massachusetts 02144

University of South Florida
Institute on Exceptional Children and Adults
4202 Fowler Avenue
Tampa, Florida 33620

University of Texas
Special Education Instructional Materials Center
304 West 15th Street
Austin, Texas 78701

United States Office of Education
Bureau of Education for Handicapped
400 Maryland Avenue, S.W.
Donahoe Building
Washington, D.C. 20202

United States Office of Education
Bureau of Occupational & Adult
Education
7th and D Streets, S.W.
Washington, D.C. 20202

Warren Center for Emotionally
Disturbed Children
11 Pierce Street
Brookline, Massachusetts 02146

LEARNERS WITH LEARNING DISABILITIES

Books, Handbooks, Pamphlets, Articles

Blackwell Robert B. & Joyut, Robert R. Ed. *Learning Disabilities Handbook for Teachers*. Springfield, Illinois: C. C. Thomas, 1976.

Brown, Eleanor B. *The Slow Learner in Business Education.* A Selected Bibliography. Kent, Ohio: Kent State University, Bureau of Economic and Business Research, 1964.

Bush, W. and Giles, M. T. *Aids to Psycholinguistic Teaching.* Columbus, Ohio: Charles E. Merrill Publishing Company, 1969.

Chaiken, W. E. & Harper, M. J. *Mainstreaming the Learning Disabled Adolescent: A Staff Development Guide*. Springfield, Illinois: Charles C. Thomas, Publisher, 1979.

Chaney, Clara M. & Kephart, Newell C. *Motoric Aids to Perceptual Training.* Columbus, Ohio: Charles E. Merrill Publishing Co., 1968.

Cratty, Dryant J. *Developmental Sequences of Perceptual-Motor Tasks.* Freeport, L. I., New York: Educational Activities, 1967.

Exploratory and Evaluative Research in the Vocational Adjustment of the Handicapped. Albertson, New York: Human Resources Center, 1970.

Farnham-Diggary, Sylvia *Learning Disabilities: A Psychological Perspective.* Cambridge, Massachusetts: Harvard University Press, 1978.

Farrald, Robert R. & Schamber, Richard G. *Handbook 1: A Mainstream Approach to Identification, Assessment and Amelioration of Learning Disabilities*. Sioux Falls, South Dakota: ADAPT Press, Inc., 1973.

Free and Inexpensive Learning Materials. Nashville, Tennessee: Division of Surveys and Field Services, George Peabody College for Teachers.

Gardner, W. I. *Children with Learning and Behavior Problems: A Behavior Management Approach*. Boston: Allyn and Bacon, 1974.

Gearheart, Bill *Learning Disabilities: Educational Strategies*. 2nd Edition. St. Louis, Missouri: C. V. Mosby.

Gearheart, B. R. *Teaching the Learning Disabled*. St. Louis, Missouri: C.V. Mosby, 1976.

Giles, Marion T. *Individual Learning Disabilities Classroom Screening Instrument*. Evergreen, Colorado: Learning Pathways, Inc., 1973.

Glaser, Kurt *Learning Difficulties: Causes & Psychological Implications--A Guide for Professionals*. Springfield, Illinois: C. C. Thomas, 1978.

Goodman, Libby & Mann, Lester *Learning Disabilities in the Secondary School: Issues & Practices*. New York, New York: Grune & Stratton, 1976.

Guidelines for Identifying, Classifying, and Serving the Disadvantaged and Handicapped under the Vocational Education Amendments of 1968. Revised Edition: Suggested Utilization of Resources and Guides for Expenditures. Washington, D.C.: U.S. Department of Health, Education, and Welfare, June, 1972.

Lerner, Jane Children with Learning Disabilities. Houghton Mifflin (1976) For college students and teachers of the child with learning disabilities.

"Learning Disabilities" U.S. Dept. of Health, Education and Welfare; U.S. Gov't. Printing Office, Washington, D.C. 20402.

International Approach to Learning Disabilities of Children and Youth. California: Academic Therapy Publications, 1967.

Ismail, H.H. and Gruber, J.J. Motor Aptitude and Intellectual Performance. Columbus, Ohio: Charles E. Merrill Publishing Co., 1967.

Johnson, Doris and Myklebust, Helmer. Children With Learning Disabilities. New York: Grune and Stratton, 1967.

McCarthy, James and McCarthy, Joan. Learning Disabilities. Allyn and Bacon, Inc. Boston, MA, 1969.

Millicap, J. Gordan, Learning Disabilities and Related Disorders: Facts and Current Issues . Chicago, Illinois: Yearbook Medical, 1977.

Myers, Patricia I. and Hammill, Donald D. Methods for Learning Disorders. New York: John Wiley and Sons, Inc., 1969.

Myklebust, Helmer. Progress in Learning Disabilities. Vol. 1. New York: Grune and Stratton, 1967.

Ohio ACLD State Office and Information Center, Ohio's Learning Disabilities
333 West National Road--Englewood Road, Englewood,
Ohio 45322.

Rosner, Jerome; Helping Children Overcome Learning Difficulties: A Step-by-Step Guide for Parents and Teachers. Walker and Co.,(1975 valuable resources).

Rozamund, Fred and Donald, David W. A Step Forward: Secondary Interagency Work Experience Programs. Office of the Superintendent of Public Instruction, Springfield, Illinois, n.d.

Suttles. Educators Guide to Free Teaching Aids. Randolph, Wisconsin, Educators Progress Service.

Towne, Douglas C. and Wallace, Sydney. Vocational Instructional Materials for Students with Special Needs. Portland, Oregon, Northwest Regional Educational Laboratory, 1972. (Available from: Douglas Towne, Special Needs Project, Northwest Regional Educational Laboratory, 710 S.W. Second Avenue, Portland, Oregon 97204.)

Valett, Robert E. The Remediation of Learning Disabilities. Palo Alto, California Fearon Publishers, 1968.

Van Witsen, Betty. Perceptual Training Activities Handbook. New York: Teachers College Press, Teachers College, Columbia University, 1967.

Warner, Joan M. Learning Disabilities: Activities for Remediation. 1973, Interstate, Danville, Ill.

Waugh, Kenneth W. and Bush, Wilma Jo. Diagnosing Learning Disorders. Columbus, Ohio: Charles E. Merrill Publishing Co., 1971.

Working with the Handicapped in the Vocational Home Economics Classroom. Columbus: Ohio State Dept. of Education, 1979, 1-3.

Agencies and Organizations

The following is a list of National and State agencies/organizations servicing this group of learner. Contact the state or federal office for the regional and/or area offices.

Adult Rehabilitation Services
1176 River St.
Hyde Park, MA 02136

Brookline Multi-Service Centers
61 Park St.
Brookline, MA 02146

CareerAids, Inc.
8950 Lurlene Ave, Dept. V72
Chatsworth, California 91311

Columbia University
Research and Demonstration Center for Education of Handicapped Children and Youth
525 West 120th St.
New York, New York 10027

The Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Federation for Children with Special Needs
Suite 338
120 Boylston St.
Boston, MA

James Book Publishers
3531 Investment Bldg. Suite 57
Haywood, California 94545

University of Kansas
Special Ed. Instructional Materials Center
Hodder Hall
Lawrence, Kansas 66044

University of Kentucky
Regional Special Ed. Instructional Materials Center
730 South Limestone St.
Lexington, Kentucky 40506

Mafex Associates, Inc.
90 Cherry St., Box 519
Johnstown, Penn. 15907

Maimonidas Institute for Exceptional Children
34-01 Mott Avenue
Far Rockaway, New York 11691

Mass. Rehabilitation Commission
Statler Office Bldg.
20 Providence St.
Boston, MA 02116

University of Minnesota
Research and Development Center in Education of Handicapped Children
Pattee Hall
Minneapolis, Minnesota 55455

National Association for Children with Learning Disabilities
4156 Library Road
Pittsburgh, PA 15234

University of Northern Colorado
Rocky Mountain Special Education Instructional Materials Center
Greeley, Colorado 80631

President's Committee on Employment of the Handicapped
1111 20th St. N.W.
Washington, D.C. 20210

Regional Instructional Material Center for Handicapped Children and Youth
213 Erickson Hall
East Lansing, Michigan 48823

Massachusetts Rehabilitation Commission
Statler Office Bldg.
20 Providence St.
Boston, MA 02116

Memorial Home for the Blind
51 Harvard St.
Worcester, MA 01609

Morgan Memorial Goodwill Industries
95 Berkeley St.
Boston, MA

National Association for Visually Handicapped
3201 Balboa St.
San Francisco, California 94121

National Braille Press, Inc.
88 St. Stephen St.
Boston, MA 02115

National Federation of the Blind
Suite 212, DuPont Circle Bldg.
1346 Connecticut Avenue, N.W.
Washington, D.C. 20036

National Ind. for the Blind
1455 Broad St.
Bloomington Field, N.J. 07003

National Society for the Prevention of
Blindness, Inc.
79 Madison Ave.
New York, New York 10016

Office for the Blind and Visually Handicapped
Dept. of H.E.W.
330 C. St. S.E.
Washington, D.C. 20201

Perkins School for the Blind
175 North Beacon St.
Watertown, MA 02172

President's Committee of Employment
of the Handicapped
1111 20th St. N.W.
Washington, D.C. 20201

Protestant Guild for the Blind
456 Belmont St.
Watertown, MA 02172

Recording for the Blind, Inc.
215 E. 58th St.
New York, New York 10022

Regional Instructional Materials Center
for Handicapped Children and Youth
213 Erickson Hall
East Lansing, Michigan 48823

Society for Visual Education
1345 Diversey Parkway
Chicago, Illinois 60614

United States Office of Education
Bureau of Education for Handicapped
400 Maryland Ave. S.W
Donahoe Bldg.
Washington, D.C. 20202

University of Kansas
Special Education Instructional
Materials Center
Hodder Hall
Lawrence, Kansas 66044

University of Kentucky
Regional Special Education Instructional Materials Center
730 South Limestone St.
Lexington, Kentucky 40506

University of Minnesota
Research and Development Center in
Education of Handicapped Children
Parree Hall
Minneapolis, Minnesota 55455

University of Northern Colorado
Rocky Mountain Special Education
Instructional Materials Center
Greeley, Colorado 80631

University of South Florida
Institute on Exceptional Children and
Adults
4202 Fowler Avenue
Tampa, Florida 33620

University of Texas
Special Education Instructional Material
Center
304 West 15th St.
Austin, Texas 78701

Vision Foundation of Mass., Inc.
770 Centre St.
Newton, MA 02158

Volunteer Services for the Blind, Inc.
919 Walnut St.
Philadelphia, Pennsylvania 01997

LEARNERS WHO ARE DISADVANTAGED AND/OR CULTURALLY DIFFERENT

Books, Handbooks, Pamphlets, Articles

Anderson, Robert M., Hemmenway, Robert; & Anderson, Janet W. Instructional Resources for Teachers of the Culturally Disadvantaged and Exceptional Springfield, Illinois: Charles E. Thomas, 1979.

Apple, Joe A. The New Indians. Los Angeles, California: Dell Publishing Company, Inc., 1968.

Arena, John I. Teaching Educationally Handicapped Children. San Rafael, California: Academic Therapy Publications, 1967.

Bartsch, Paul A. "Determining the Need for EMR Industrial Arts Shop Experience." Unpublished M.A. Thesis, California State College, Los Angeles, 1973.

Birch, Herbert G. & Gusson, Joan D. Disadvantaged Children: Health Nutrition & School Failure. New York, New York: Harcourt Brace Jovanovich, 1970.

Bottom, Raymond. The Education of Disadvantaged Children. New York: Parker Publishing Company, Inc., 1970.

Brandon, George L., ed. "Research Visibility: Manpower Development, Vo-Ed for the Disadvantaged. "American Vocational Journal," XXXXV (September 1970), 41-56.

Brown, Eleanor B. The Slow Learner in Business Education, A Selected Bibliography. Kent, Ohio: Kent State University, Bureau of Economic and Business Research, 1964.

Buffer, James J. "Preparing Industrial Arts Teachers for Disadvantaged Children in our Urban Centers. "Where the Action Is. Selected Addresses and Proceedings of the American Industrial Arts Association 31st Annual Convention at Las Vegas, Nevada. Washington, D.C.: The American Industrial Arts Association, August 1969.

Burchill, George W. Work Study Programs for Alienated Youth. Chicago: Science Research Association, 1962.

Chernow, Fred B. and Chernow, Carol. Teaching the Culturally Disadvantaged Child. New York, 1973.

Cipher in the Snow. Brigham Young University: Department of Motion Picture Production. Provo, Utah.

Cochran, Leslie H. "Industrial Education and the Disadvanted." American Vocational Journal, XXXXIV (December 1969), 61-63.

Cohen, S. Alan. Teach Them All to Read: Methods and Materials for Teaching the Disadvantaged. New York: Random House, Inc., 1969.

Consumer and Homemaking Education for the Disadvantaged. Lakeshore Technical Vocational, Adult Education - District Eleven, 843 Jefferson Avenue, Sheboygan, Wisconsin.

Crow, Lester D.; Murray, Walter I., & Symthe, Hugh H. Educating the Culturally Disadvantaged Child. New York: David McKay, 1966.

Disadvantaged Child: Studies of the Social Environment and the Learning Process. Martin Deutsch et al 1968 Bosei Books, New York, New York

Eastman, C.A. The Soul of the Indian. Fenwyn Press Books, 1970.

Human Resources Center, Exploratory and Evaluative Research in the Vocational Adjustment of the Handicappped. Albertson, NY, 1970.

Feck, Vincent. What Vocational Education Teachers and Counselors Should Know About Urban Disadvantaged Youth. ERIC (Clearing House on Vocational And Technical Education), October, 1971.

Division of Surveys and Field Services. Free and Inexpensive Learning Materials. Nashville, Tennessee: George Peabody College for Teachers.

Frost, Joe L., and Hawkes, Glenn R. The Disadvantaged Child. New York: Houghton Mifflin Co., 1966.

Gorman, A., Hansen, C., Manning, D. and Pne, D. Operation Resource for Teacher Educators and Other Education Personnel Concerned with Teaching the Disadvantaged Learner. Final Report. Columbus: Ohio State University Center for Vocational and Technical Education, 1972. 235 pp.

Gottlieb, David and Ransey, Charles E. Understanding Children of Poverty. Chicago, IL: Schience Research Associates, Inc., 1967.

Gubler, L.; Moore, J.W.: and Gusman, R.C. The Mexican American People. New York: The Free Press, 1970.

Guidelines for Identifying, Classifying, and Serving the Disadvantaged and Handicapped under the Vocational Education Amendments of 1968. Revised Edition: Suggested Utilization of Resources and Guides for Expenditures. Washington, D.C.: U.S. Department of Health, Education, and Welfare, June, 1972.

Hickerson, Nathaniel. Education for Alienation. Englewood Cliffs, NJ: Prentice Hall, Inc., 1966.

Howitt, Lillian C. Creative Techniques for Teaching the Slow Learner. New York: Teachers Practical Press, 1964.

Kagy, Frederick D. "The Needs of Disadvantaged Youth: Implications for Industrial Arts. " Where the Action Is. Selected Addresses and Proceedings of the American Industrial Arts Association's Thirty-first Annual Convention at Las Vegas, Nevada. Washington, D.C.: The American Industrial Arts Association, August, 1969.

Karlin, Muriel Schoenbrun, and Berger, Regina. Successful Methods for Teaching the Slow Learner. New York: Parker Publishing Company, Inc., 1969.

McMurrin, Sterling M., ed. Functional Education for Disadvantaged Youth. New York: Committee for Economic Development, 1971.

Meers, G.D., Development and Implementation of Program Models for Assisting Vocational Teachers in Dealing with the Educationally Disadvantaged Handicapped and Minorities. Final Report. Lincoln: University of Nebraska, 1977. 122 pp.

Nadolsky, Julian M. Development of a Model for Vocational Evaluation of the Disadvantaged, Interim Report. Auburn, AL, Sept. 1971.

Nesbitt, John M., Paul D. Brown, and James F. Murphy. Recreation and Leisure Service for the Disadvantaged. Philadelphia, Lea and Febiger, 1970.

Division of Vocational and Technical Education, Occupational Education for Disadvantaged and Handicapped Persons. Bulletin No. 40-273. Springfield, Illinois, n.d.

Ornsteirn, Allan C. and Vairo, Philip D. How to Teach Disadvantaged Youth. David McKay Company, Inc., New York, 1969.

Passow, Harry A. Developing Programs for the Educationally Disadvantaged. Teachers College, Columbia University, New York, 1968.

Passow, Harry A. Education in Depressed Areas. New York: Teachers College Press, Teachers College, Columbia University, 1963.

Ressler, Ralph. "Make Room for Disadvantaged in Industrial Arts." Industrial Arts and Vocational Education, LX (November, 1971), 24-26.

Riessman, Frank. The Culturally Deprived Child. New York: Harper and Row, 1962.

Riessman, Frank. Helping the Disadvantaged Pupil to Learn More Easily. Prentice-hall, Inc., Englewood Cliffs, New Jersey, 1966.

Rozamund, Fred and Donald, David W. A Step Forward: Secondary Interagency Work Experience Programs. Office of the Superintendent of Public Instruction, Springfield, Illinois, n.d.

Schmitt, Henry E. and Woodin Ralph S. "Strategies for Preparing Teachers to Reach and Teach the Disadvantaged." American Vocational Journal, XXXXV (November, 1970). 24-25, 81.

Schreiber, D., ed. The School Dropout. Washington: National Education Association, 1964.

Smith, Robert M., Ed. Teacher Diagnosis of Educational Difficulties. Columbus, Ohio: Charles E. Merrill Publishing Co., 1968.

Steiner, S. La Raza, the Mexican Americans. New York: Harper & Row, Publishers, 1970.

Steiner, S. The New Indians. New York: Dell Publishing Company, Inc., 1968.

Webster, Stoten W., ed. The Disadvantaged Learner, Knowing, Understanding, Educating. California: Chandler Publishing Co., 1966.

Younie, William J. Instructional Approaches to Slow Learning. New York: Teachers College Press, 1967.

Agencies and Organizations

The following is a list of National and State agencies/organizations servicing this group of learners. Contact the state or federal office for the regional and/or area offices.

Adult Rehabilitation Services
1176 River St.
Hyde Park, MA 02136

Brookline Multi-Service Centers
61 Park St.
Brookline, MA 02146

CareerAids, Inc
8950 Lurlene Ave, Dept. V72
Chatsworth, California 91311

Columbia University
Research and Demonstration Center for Education of Handicapped Children and Youth
525 West 120th St.
New York, New York 10027

The Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Federation for Children with Special Needs
Suite 338, 120 Boylston St.
Boston, MA

James Book Publishers
3531 Investment Blvd, Suite 57
Haywood, California 94545

University of Kansas
Special Education Instructional Materials Center
Hodder Hall
Lawrence, Kansas 66044

University of Kentucky
Regional Special Education Instructional Materials Center
730 South Limestone Street
Lexington, Kentucky 40506

Mafex Associates, Inc.
90 Cherry St., Box 519
Johnstown, Pennsylvania 15907

Maimonidas Institute for Exceptional Children
34-01 Mott Avenue
Far Rockaway, New York 11691

Regional Instructional Materials Center for Handicapped Children and Youth
213 Erickson Hall
East Lansing, Michigan 48823

University of Minnesota
Research and Development Center in Education of Handicapped Children
Pattee Hall
Minneapolis, Minnesota 55455

University of Northern Colorado
Rocky Mountain Special Education Instructional Materials Center
Greeley, Colorado 80631

President's Committee on Employment of the Handicapped
20th St. N.W.
Washington, D.C. 20210

University of South Florida
Institute on Exceptional Children and Adults
4202 Fowler Avenue
Tampa, Florida 33620

University of Texas
Special Education Instructional Materials Center
304 West 15th St.
Austin, Texas 78701

United States Office of Education
Bureau of Education for Handicapped
400 Maryland Ave. SW
Donahoe Bldg.
Washington, DC 20202

United States Office of Education
Bureau of Occupational Education and Adult Education
7th and D. Street, S.W.
Washington, D.C. 20202

MAINSTREAMING

Books, Handbooks, Pamphlets, Articles

Albright, Leonard and Clark, Gary (Eds). Preparing Vocational and Special Education Personnel to Work with Special Needs Students: A Teacher Education Resource Guide. Urbana-Champaign: University of Illinois, Bureau of Educational Research, 1976, 196 pp.

Altfest, M., Hartley, N. and Rocco, P. Vocational Education for Students with Special Needs. Fort Collins: Colorado State University, 1975.

Anderson, C. M. Classroom Activities for Modifying Misbehavior in Children. West Nyack, New York: The Center for Applied Research in Education, 1974.

Axelrod, S. Behavior Modification for the Classroom Teacher. New York: McGraw-Hill, 1977.

Ballard, J. Public Law 94-142 and Section 504 - Understanding What They Are and Are Not. Restor, Virginia: Council for Exceptional Children, 1977, 14 pp.

Barrier Free Site Design. American Society of Landscape Architects Foundation/U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Washington, D.C.: U.S. Government Printing Office, 1976.

Bekker, Gerald. A Model for Evaluating Programs in Vocational Education for the Handicapped. College Station, Texas: College of Education, Texas A & M University, 1975.

Bibliography of Secondary Materials for Teaching Handicapped Students. President's Committee on Employment of the Handicapped, Washington, D.C.

Birch, Jack. Mainstreaming: Educable Mentally Retarded Children in Regular Classes.

Brown, Eleanor B. The Slow Learner in Business Education. A Selected Bibliography. Kent, Ohio: Kent State University, Bureau of Economic and Business Research, 1964.

Brown, V. I. & Wood, F. H. A Partnership Between Regular and Special Educators: From Adversaries to Advocates. In J. B. Jordan (Ed.) Exceptional Students in Secondary Schools. Reston, Virigina: Council for Exceptional Children, 1978.

Brock, R. J. Vocational Education for the Handicapped. Final Report. Menonomie: University of Wisconsin-Stout, 1978, 84 pp.

Burchill, George W. Work Study Programs for Alienated Youth. Chicago: Science Research Association, 1962.

Bureau of Education for the Handicapped, Office of Education, Department of Health Education and Welfare. I.E.P.: Developing Criteria for the Evaluation of Individualized Education Program Provisions (Exploring Issues in the Implementation of P.L. 94-142.) Philadelphia, Pennsylvania: Research for Better Schools, Inc., 1979.

Calovini, Gloria. Mainstreaming the Visually Impaired Child. Springfield, Illinois: Instructional Materials Center, Office of Superintendent of Public Instruction.

Canada, National Research Council. Associate Committee on the National Building Code Building Standards for the Handicapped, Canada: Ottawa, 1965.

Captioned Films for the Handicapped. U.S. Office of Education, Bureau of Education for the Handicapped, Division of Educational Services, Washington, D.C.

Charkin, W. E. and Harper, K. J. Mainstreaming the Learning Disabled Adolescent: A Staff Development Guide. Springfield, Illinois: Charles C. Thomas Publisher, 1979.

Clark, G. M. and Evans, R. N. State of the Art. Editors E.K. Abbas and P.L. Sittlington, Issues in Preparation of Personnel for the Vocational Programming of Special Needs Students: Synopses of Selected Materials. Urbana: University of Illinois, 1976.

D'Alonzo, Bruno J. "Career Education for the Handicapped." Illinois Career Education Journal, Winter, 1963.

Dahl, P.R., Appleby, J.A., and Lipe, D. Mainstreaming Guidebook for Vocational Educators. Salt Lake City, Utah: Olympus Publishing Co., 1978.

Davis, S. and Ward, M. Vocational Education of Handicapped Students - A Guide for Policy Development. Reston, Virginia: Council for Exceptional Children, 1978.

Diebert, Alvin N. and Harmon, Alice J. New Tools for Changing Behavior. Champaign, Illinois: Research Press, 1970.

DeRisi, William J. and Butz, George. Writing Behavioral Contracts. Champaign, Illinois: Research Press, 1975.

Dewey, John E. Vocational Education. Edited by J. B. Jordan, Exceptional Students in Secondary Schools. Reston, Virginia: Council for Exceptional Children, 1978.

Dunn, Rita and Kenneth. Teaching Students Through Their Individual Learning Styles: A Practical Approach. Englewood, Cliffs, New Jersey: Reston Publishing Company, Inc. and Prentice-Hall, 1978.

Exploratory and Evaluative Research in the Vocational Adjustment of the Handicapped. Albertson, New York: Human Resources Center, 1970.

Division of Surveys and Field Services. Free and Inexpensive Learning Materials. Nashville, Tennessee: George Peabody College for Teachers.

Franken, M.E. and Tindall, L.W. Identifying Handicapped Students and Their Vocational Needs for 1977-82. Madison: University of Wisconsin, 1977, 47 pp.

Frick, L. and Sawyers, B. Mainstreaming Secondary Special Vocational Needs Learners. Lafayette, Indiana: Purdue Research Foundation.

Gill, D. H. and Sankovsky, R. Cross-training Vocational and Special Educators: Report of a Workshop. Statesboro, Georgia Southern Georgia College, 1978 (ERIC Document Reproduction Service No. ED 168 271).

Greenspan, Stanley and Horwath, Richard. "A Public School Program of Economic Independence for Special Education Students." Unpublished manuscript, n.d.

Gropper, George L. Instructional Strategies. Englewood Cliffs, New Jersey: Educational Technology Publishing, 1974.

Guidelines for Identifying, Classifying, and Serving the Disadvantaged and Handicapped under the Vocational Education Amendments of 1968. Revised Edition: Suggested Utilization of Resources and Guides for Expenditures. Washington, D.C.: U.S. Department of Health, Education, and Welfare, June 1972.

Hartley, Nancy. "Channeling Students into the Mainstream." Vocational Education, 1978, 53(7), 39-42.

Heller. Typing for the Handicapped. Curriculum Research Press.

Home. L. How to Use Contingency Contracting in the Classroom. Champaign, Illinois: Research Press, 1969.

Horne, M. P. Teacher Attitude: A Factor to Consider in Mainstreaming. Albany: State University of New York, 1978.

Johnson, David W. and Johnson, Roger T. Learning Together and Alone. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1975.

Jones, Reginald. New Directions in Special Education. Boston, Massachusetts: Allyn and Bacon, Inc., 1971.

Kemp, Barbara H. "Where Vocational Education Is a Special Need." American Vocational Journal, XXXXII (November 1967), 24-25,52.

Klough, Jack. Identifying Children with Special Needs. Science Research Associates, Inc., 1955.

Kunder, Linda. Barrier - Free School Facilities for Handicapped Students. ERS Information Aid, Educational Research Service, Inc., 1800 North Kent Street, Arlington, VA 22209, 1977, $7.00.

Larsen, E. D. Focus: A Successful Secondary School Program for Dealing with Disaffected Youth. Edited by J. B. Jordan, Exceptional Students in Secondary Schools, Reston: Virginia: Council for Exceptional Children, 1978.

Macer, R. A. Sensitizing Vocational Educators to Effective Instructional Strategies to Serve Special Needs Persons. Columbus: Ohio State, Department of Education, 1977.

Mainstreaming: Helping Teachers Meet the Challenge. Washington, D.C.: National Advisory Council in Education Professions Development, 1976.

Maloney, P., Resources for Mainstreaming Exceptional Students in Vocational Education Programs. Palo Alto: The American Institutes for Research in the Behavioral Sciences, 1978.

Martin, E. New Directions in Vocaional Education for the Handicapped: Implications for Research and Development. Columbus, Ohio: The National Center for Research in Vocational Education, 1978.

McNett, I. E. I Don't Consider Myself Handicapped: Profiles of Adults in Special Education. New York: City University of New York, N.Y. Queens College, New Careers Training Lab, 1978. (ERIC Document Reproduction Service No. ED 165 374).

Meers, G. D. Development and Implementation of Program Models for Assisting Vocational Teachers in Dealing with the Educationally Disadvantaged, Handicapped, and Minorities. Lincoln: University of Nebraska, 1968.

Occupational Education for Disadvantaged and Handicapped Persons. Springfield, Illinois: Division of Vocational and Technical Education. Bulletin No. 40-273. n.d.

Parker, S. L., Taylor, G.M., Hartman, W. T., Wong, R. O., Grigg, D. A., and Shay, D. E. Improving Occupational Programs for the Handicapped. Washington, D.C.: U.S. Government Printing Office, undated.

Paul, J.L., Turnbull, A.P., and Cruikshank, W.M. Mainstreaming, A Practical Guide. Syracuse, New York: Syracuse University Press, 1977.

Personnel Preparation Division, Bureau of Education for the Handicapped, U.S. Office of Education. Personnel Preparation and Public Law 94-142: The Map, the Mission, and the Mandate. Boothwyn, Pennsylvania: Education Resources Center, 1978, 90 pp.

Phelps, A. L. Instructional Development for Special Needs Learners. Urbana: University of Illinois, 1975.

Phelps, L. Allen, Evans, R. N., Abbas, E. K., and Frison, K. Vocational Education for Special Needs Students: Competencies and Models for Personnel Preparation. Final Report in the National Workshop on Vocational Education for Special Needs Students. Urbana-Champaign, University of Illinois, 1976, 193 pp.

Prince William Model: A Planning Guide for the Development and Implementation of Full Services for all Handicapped Children. Washington, D.C.: National Association of State Directors of Special Education, 1976.

Pritchard, David G. *Education and the Handicapped,* Atlantic Highlands, New Jersey: Humanities Press, 1963.

Resource Book for Career and Vocational Education of Handicapped Students. Bedford Hts., Ohio: Cuyahoga Special Education Service Center, n.d.

Reynolds, Maynard C. and Davis, Malcolm D. *Exceptional Children in Regular Classrooms.* Bureau of Educational Personal Development, U.S. Office of Education.

Rolin, Don and Kokaska, Charles. *Career Education for Handicapped Children and Youth.* Columbus, Ohio: Merrill, 1979, 433 pp.

Ross, Herbert J. "Guidelines for Serving Youth with Special Needs in Vocational Education." Unpublished Ed.D. Dissertation, Temple University, 1970.

Rozamund, Fred and Donald, David H. *A Step Forward: Secondary Interagency Work Experience Programs.* Office of the Superintendent of Public Instruction, Springfield, Illinois, n.d.

Rumble, R. R. *A Synthesis of Information Obtained from a Literature Review and Field Research Activities Regarding the Mainstreaming of Handicapped Learners in Vocational Education: In Mainstreaming Handicapped Students.* Portland, Oregon: Portland Public Schools, 1978.

Schrag, J. A. *Individualized Educational Programming (I.E.P.) Leader's Guide.* Edited by T. N. Fairchild, *Mainstreaming Training Series.* Austin, Texas: Learning Concepts, 1977.

Semmel, D. "Interdisciplinary Individualized Occupational Plans (EIP/IOP) for Special Needs Learners Using a Team Approach." In *Proceedings: Conference on New Role of Vocational Educators in Meeting the Needs of Handicapped Disadvantaged Students.*

Special Issue on Reaching Out to Students with Special Needs, Vol. 47, No. 8, Washington, D.C., November 1972.

Stephens, Thomas M. *Directive Teaching of Children With Learning and Behavioral Handicaps.* Columbus, Ohio: Charles E. Merrill Publishing Company, 1970.

Suggestions for Teaching Business Pupils of Different Ability Levels--With Special Emphasis on Pupils Experience Difficulty. Albany, New York: Bureau of Business and Distributive Education, State Educational Department, University of the State of New York, 1964.

Suttles. *Educators Guide to Free Teaching Aids.* Randolph, Wisconsin: Educators Progress Service.

Taylor, R., Thomason, Dean, and Thomason, Bruce, eds. *Vocational Education and Rehabilitation of the Disabled and Disadvantaged.* Proceedings of a Regional Training Conference, University of Florida, Gainesville, 1970.

Tindall, L. W. *Program Evaluation and Planning for the Vocational Education of Handicapped Students: Secondary and Post-secondary Articulation*. Madison: University of Wisconsin, 1977, 25 pp.

Towne, Douglas C. and Wallace, Sydney. *Vocational Instructional Materials for Students with Special Needs.* Portland, Oregon, Northwest Regional Educational Laboratory, 1972. (Available from: Douglas Towne, Special Needs Project, Northwest Regional Educational Laboratory, 710 S.W. Second Avenue, Portland, Oregon 97204).

Turnbull, Ann P., Schulz, Jame B. *Mainstreaming Handicapped Students: A Guide for the Classroom Teacher*. Boston: Allyn & Bacon, Inc., 1979.

Ullery, J. W., Individualized Instructional Systems for Vocational Education. In *The Educational Technology Reviews Series. Number 8: Instructional Systems*. Englewood Cliffs, New York: Educational Technology Publications, 1973.

Viggiani, James C. "Industrial Arts for Exceptional Children." *School Shop.* XXIV (March 1965), 21, 42.

Von Hippel, C., Foster, J., Lonberg, J. and Biehl, R. *Civil Rights, Handicapped Persons, and Education: Section 504 Self-Evaluation Guide for Preschool, Elementary, Secondary, and Adult Education.* Washington, D.C.: Office of Civil Rights, Department of Health, Education, and Welfare, 1978.

Watson, Marjorie *Mainstreaming the Educable Mentally Retarded*. Washington, D.C.: National Education Association, 1975.

Weintraub, F. J., Abeson, A., Ballard, J., and La Vor, M. L., *Public Policy and the Education of Exceptional Children*. Reston, Virginia: Council for Exceptional Children, 1977, 378 pp.

Weisgerber, R. Vocational Education: *Teaching the Handicapped in Regular Classes*. Reston: Virginia: Council for Exceptional Children, 1978.

Working with the Handicapped in the Vocational Home Economics Classroom. Columbus: Ohio State Department of Education, 1979.

Wyllie, John R. "Sequence of Vocational and Occupational Training Programs for Handicapped Students." Trenton, New Jersey: Department of Education, Division of Vocational Education, n.d.

Young, Milton A. *Teaching Children With Special Learning Needs: A Problem-Solving Approach.* New York: John Day Company, 1967.

Films

The Community and the Exceptional Child (C2306) 30 min. b&w--Indiana University, 1957. Examines the varied types of exceptional children and how various community agencies can meet their needs.

In the Mainstream (BC3783) 14 min.--Philip Scheffler: CBS, Carousel, 1979. Examines ramifications of P.L. 94-142 for teachers, lawmakers and parents.

Individual Differences Introduction (C2297) 29 min, b&w--Indiana University, 1957. Examines individual differences in children and the problems associated with these differences.

Revolution in Relevance (BC2688) 19 min, c.--Parthenon: Datafilms, 1972. Depicts three learners who have experienced successful vocational education programs tailored to their needs.

Agencies and Organizations

The following is a list of national and state agencies/organizations servicing this group of learners. Contact the state or federal office for the regional and/or area offices:

Adult Rehabilitation Services
1176 River Street
Hyde Park, Massachusetts 02136

Brookline Multi-Service Centers
61 Park Street
Brookline, Massachusetts 02146

Career Aids, Inc.
8950 Lurline Avenue, Dept. V72
Chatsworth, California 91311
(vocational-oriented materials for mildly handicapped and disadvantaged individuals)

Columbia University
Research and Demonstration Center for Education of Handicapped Children and Youth
525 West 120th Street
New York, New York 10027

Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Federation for Children with Special Needs
Suite 338, 120 Boylston Street
Boston, Massachusetts

Janus Book Publishers
3531 Investment Blvd. Suite 5M
Haywood, California 94545

University of Kansas
Special Education Instructional Materials Center
Hodder Hall
Lawrence, Kansas 66044

University of Kentucky
Regional Special Education Instructional Materials Center
730 South Limestone Street
Lexington, Kentucky 40506

Mafex Associates, Inc.
90 Cherry Street, Box 519
Johnstown, Pennsylvania 15907

Maimonidas Institute for Exceptional Children
34-01 Hott Avenue
Far Rockaway, New York 11691

Regional Instructional Materials
Center for Handicapped Children
and Youth
213 Erickson Hall
East Lansing, Michigan 48823

University of Minnesota
Research and Development Center
in Education of Handicapped
Children
Pattee Hall
Minneapolis, Minnesota 55455

Massachusetts Rehabilitation Commission
State Office Building
20 Providence Street
Boston, Massachusetts 02116

University of Northern Colorado
Rocky Mountain Special Education
Instructional Materials Center
Greeley, Colorado 80631

President's Committee on Employment
of the Handicapped
1111 20th Street, N.W.
Washington, D.C. 20210

University of South Florida
Institute on Exceptional Children
and Adults
4202 Fowler Avenue
Tampa, Florida 33620

University of Texas
Special Education Instructional
Materials Center
304 West 15th Street
Austin, Texas 78701

United States Office of Education
Bureau of Education for Handicapped
400 Maryland Avenue, S.W.
Donahoe Building
Washington, D.C. 20202

United States Office of Education
Bureau of Occupational & Adult
Education
7th and D Streets, S.W.
Washington, D.C. 20202